

**INDEX
OF
1961
EDITORIAL
FEATURES**

CCJ
THE MAGAZINE OF FLEET MANAGEMENT
A CHILTON PUBLICATION

SAFETY IS ABNORMAL

by
Don
Buck

MILLION-MILE TRACTORS

AT DAMEO TRANSPORTATION

GEAR LUBE FACTS

by
R. K.
Smith

PLUS: VEHICLE UTILIZATION

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IN THIS ISSUE . . .

- By Don Buck: **SAFETY is abnormal** 82
A careful look at the qualities of a safe driver in what could be the beginning of a significant new approach to accident prevention
- At Dameo Transportation: **Million-mile TRACTORS** 86
Don't say it isn't practical and profitable until you've read this
- At Allyn Tank Lines: **Tank TRAILERS haul steel** 90
When you design for balanced movement, you eliminate empty return
- At Adohr Milk Farms: **DIESEL goes multi-stop** 92
It's experimental, but experience is good and outlook favorable
- From CCJ: **1961 editorial features** 93
Quick-reference index to the fact-packed articles published during the year, conveniently arranged by commonly used subject groupings
- By Oscar Horvitz: **How to boost vehicle USE** 95
Spector Freight System's treasurer tells where accountants can help
- By R. K. Smith: **Gear LUBE facts** 100
SAE, API, EP, MP, GL4, MIL . . . Do you know what they mean and where they fit when it comes to getting the most from gear lubes?

WHAT'S NEW IN . . .



- CONSTRUCTION FLEET EQUIPMENT** 114
Including an Allison automatic for heavy-duty use handling up to 7000 lb ft of engine torque
- FLEET SAFETY** 116
Small-fleet co-op plan provides "big-fleet" methods of training drivers on a cost-saving basis
- BUS EQUIPMENT** 116
Compact, on-vehicle turnstile collects and registers fares
- TRUCKS** 118
A hydraulically-operated road and rail crane carrier and the new half-ton "Jeep" Fleetvan
- FLEET CARS** 118
Compact and full-size taxicabs from Dodge for '62 and the new Stuart electrically-powered car
- TRAILERS** 120
Sliding-axle dumper, livestock units, a 3-compartment tanker to haul both hot and cold cargo and a liquid CO₂ tank trailer
- CARGO HANDLING** 122
Two loading systems, a heavy-duty forklift truck battery and a diesel-powered trailer dolly
- VEHICLE ACCESSORIES** . . 130
- SHOP EQUIPMENT** 140
- FLEET PUBLICATIONS** . . . 164

REPORTS FOR FLEETS

Up Front	9
As discussed at the Fleet Maintenance Exposition	
Truck Fleets	13
Goldberg, Meany support Teamster rebels	
Fleet Cars	17
Ford parts, used car prices and glued bodies	
Bus Fleets	20
Fixible announces its 'driverless' bus	
Vehicles & Equipment	25
What you'll find at SAE Exposition in January	
Laws & Regulation	29
New report gives clues to what to expect in Congress	
Safety	73
Detroit speaks out on designing a car for safety	
Statistics	75
New report: New truck registrations by GVW and make	
Maintenance	77
Body corrosion problems; school bus fleet PM	
The Overload	5
Bulletin Board	73
Ideas to Try	79
Laugh It Off	79
Coming Events	81
Index to	
Advertisers	158
What's Ahead	160

First stop in October for CCJ's Mobile Office was TBEA's show in Chicago. That's Armour's Art Schmidt (right) with Ed Shea. Next stop for the editorial team was 1000 miles east . . . see page 9.



Photo courtesy of Clark Equipment Co.

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COMMERCIAL CAR JOURNAL, December, 1961

A Time for Action ... on Brakes

DURING the fall, ICC road checks continued to give the trucking industry a very bad black eye. A recent check on the Pennsylvania Turnpike, for instance, produced this five-column headline on page one of a large Pennsylvania newspaper:

"10% of Pike Rigs Halted as Unsafe"

Countermeasures from public relations departments or industry spokesmen do little good. Witness the one column headline in a business magazine:

"Majority of Trucks Checked On Turnpike Met ICC Requirements"

Such a move does no more good than the bury-the-head-in-the-sand technique, hoping the bad man will go away. It's going to take *action* to stop a very bad situation that unfortunately is getting worse rather than better.

A study of ICC road check reports over the past five years is a gruesome lesson in repetition. You quickly get the feeling you've seen this one ... and this one ... and this one before. Give or take a few percentage points, and they *all* come out like this:

- 7 out of 10 trucks have some defects.
- 3 out of 10 have four or more defects.
- 1 out of 10 is knocked out of service on the spot.
- Of these, 9 out of 10 have defective brakes.

• Of these, at least 9 out of 10 are the result of faulty maintenance.

Consider each of these five basic sets of figures.

Scratch the first as a matter of opinion. It could be a cracked lens in a marker light.

Don't worry too much about the second. This is the area where the inspector must decide how chafed is "chafed" on a brake hose. It's also the area where troubles can develop since your last inspection ... maybe 500 miles back.

The third one gets dirty. The out-of-service arguments center on whether the checks were fair. Did they inspect *all* the trucks, or just the ones that *looked* bad? Can you safely squeeze another 300 miles out of a cracked brake drum or can't you? And there's always the favorite: "Most of them were gypsies, weren't they?"

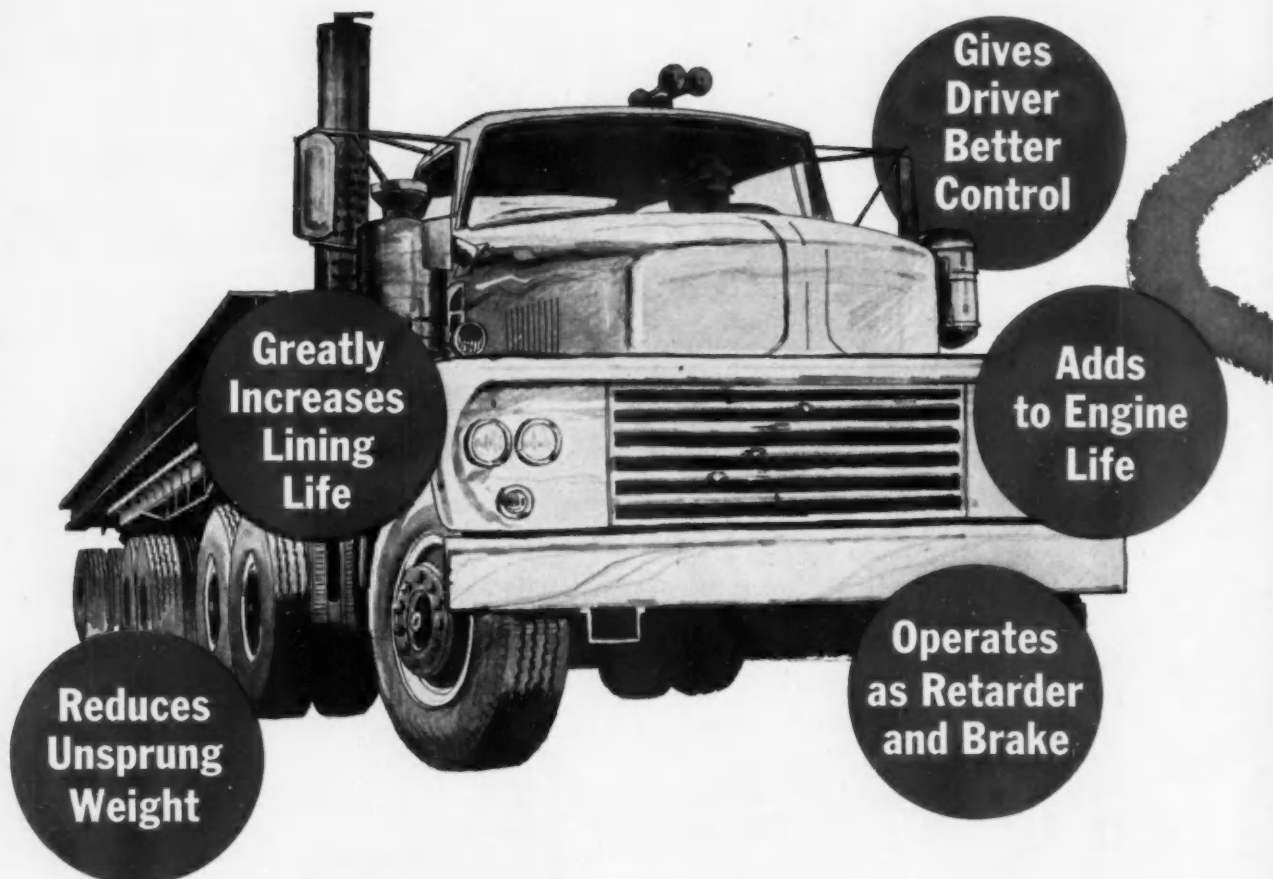
But while the industry plays with words in all these areas why can't it *do something* about brakes?

Nine out of 10 out of 9 out of 10 is a hell of a high percentage. So it boils down to the fact that the great majority of all serious troubles are *always* in the area of brake maintenance.

Suppose airlines found that 80 per cent of all their failures came from the right wing tip. They'd darn well do something about right wing tips ... first in extra careful maintenance inspection. Then they'd get together with the manufacturers to see what could be done to take the maintenance (or lack of maintenance) hazard out of right wing tips.

Why can't we do the same with brakes?

Bart Rawson
Editor



**Now you can end the operating restrictions
imposed by the danger of brake fade**

The new Wagner® Lockheed® Liquid-Cooled Disc Brake is a revolutionary truck brake development. Heat generated in the disc brake is immediately dissipated into the vehicle's radiator system. Brake fade is eliminated.

This liquid-cooled brake, installed on one axle, effectively retards and helps stop the vehicle on long grades or in heavy traffic. Drivers have better control, with full braking available at all times. Service brake lining life is increased by many thousands of miles, allowing trucks to be operated longer between reline periods. The need for using lower gears on long downgrades is reduced, engine life is prolonged. Unsprung vehicle weight is reduced.

Thoroughly Test Proved—Months of labo-

ratory tests, months of controlled testing at Wagner's Jennerstown, Pennsylvania proving grounds, cross country road testing over America's toughest commercial truck routes, and actual "in use" tests by leading fleets have thoroughly proved that these Wagner Liquid-Cooled Disc Brakes will provide greater safety and drastically cut truck downtime and brake maintenance costs.

Interchangeable with Other Foundation Brake Assemblies—Since this liquid-cooled brake can be mounted on a standard axle, it is interchangeable with other types of foundation brakes. Fleet owners can make the change-over on their present equipment—vehicle manufacturers can simplify inventory and reduce assembly line problems.



NEW WAGNER®-LOCKHEED® LIQUID-COOLED DISC BRAKES

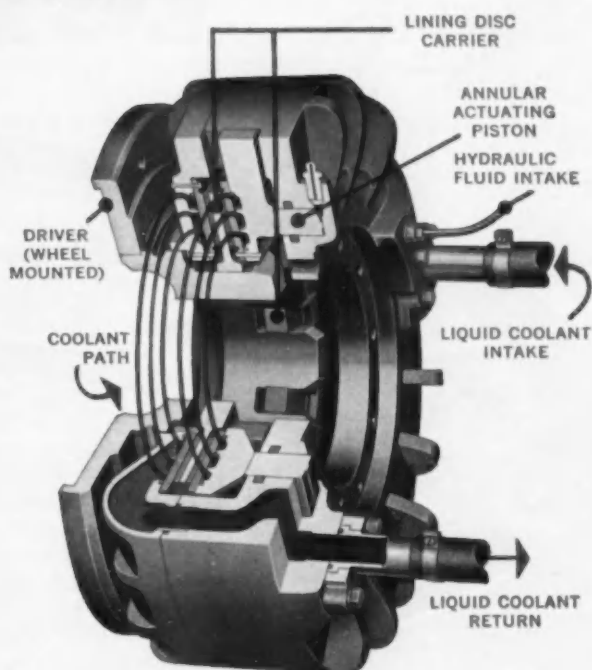
DISSIPATE HEAT...ELIMINATE BRAKE FADE

How the Liquid-Cooled Disc Brake System Works

Liquid coolant used in the brake is simply routed from the vehicle's radiator cooling system to a surge tank; then, with the help of a pump, coolant is circulated to the brakes. The surge tank may be eliminated if the radiator top tank is large enough to allow for fluid expansion.

This system lends itself especially well for conventional driving since brake cooling is not needed when the vehicle is ascending a hill. On the other hand, when the brakes are needed for stopping or decelerating on a hill, the engine has less need for cooling by the radiator, and the use of the brake prevents engine overcooling on long downgrades.

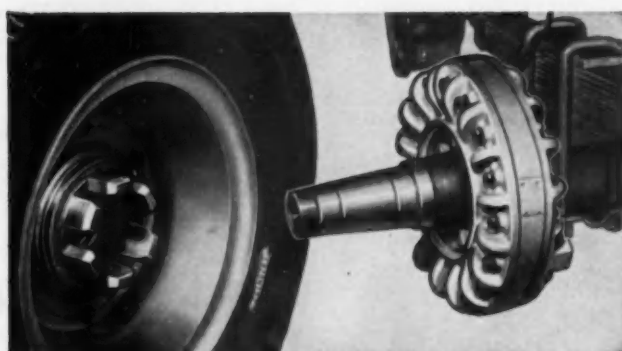
The brake, illustrated at right, is designed for air-over-hydraulic actuation, using a power cluster. The outer and inner housing of the brake comprise a cast aluminum housing. The annular actuating piston is also aluminum and is sealed by "O" ring piston seals. Brake lining is bonded to the steel lining carrier. The inner periphery of this carrier is slotted to mate with the teeth on the driver, which is bolted on the wheel. Copper friction plates are attached and sealed to the outer housing and the copper carrier.



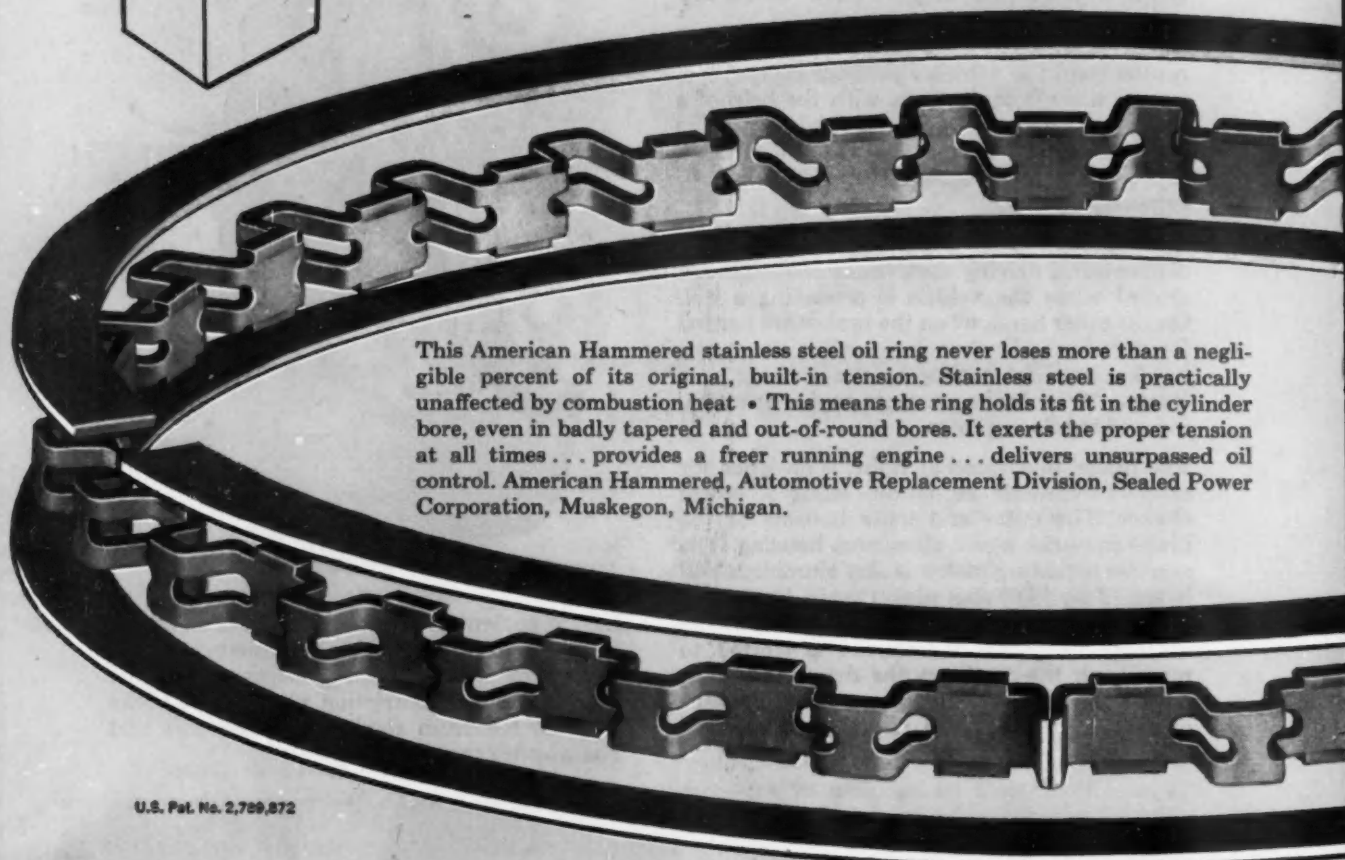
Liquid coolant can enter on either side of the brake, depending on the axle mounting and flow through the coolant passages to the back side of the copper friction plates. The brake is protected from road splash and dirt and contains no running seals.

For Complete Information, Write
Wagner Electric Corporation
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Liquid-Cooled Brake Systems

WA61-10



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stainless steel oil rings

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CCJ FLEET MANAGEMENT REPORT

Super-roads, oils are 'hot' at exposition

Know what higher speeds on urban expressways are going to do for your city fleet operation? Cost you money, that's what. This was the opinion of H. F. Copp of Ford Motor Co. given before a panel session at the Fleet Maintenance Exposition last month in New York's Coliseum.

Where do the man-hours saved through faster travel go, you ask? Simple: The few minutes a day you can save on the expressways will not pay for the added fuel costs. Run a city truck up to 50 or 55 mph several times a day and the added fuel costs are going to be more than the dollar or so you'll save in wages. His remedy for the problem: Buy higher-rated engines which won't work to capacity on the expressways. Another way: Keep speeds down—even on the super-roads.

Here are other points raised in exposition sessions:

Operating costs

● Can the higher speeds on turnpikes and expressways cut your equipment costs by vehicles' carrying a larger volume? IH's Earl S. Clifton says, "No. You'll find you can't eliminate any equipment."

Crankcase ventilation

● Is positive crankcase ventilation a cure for sludge problems? It helps, says Ford's Copp, but it's no substitute for modern detergent oils.

Engine break-in

● Why don't factories break in engines for fleet operators if the break-in period is so critical for engine life? You wouldn't want to pay what the service would have to cost, said a factory man.

Crankcase flushing

● Any point in flushing out an engine? One oil expert said today's oils are so good that draining the crankcase while the engine is hot should be all the cleaning you need. He does not "oppose" flushing, just thinks it wastes time.

● And why use break-in oils? They're designed to float away the particles left in the engine during manufacture. Probably break-in oils should be better lubricators, but they more than make up for that lack through their ability to get the engine ready for full-load operation.

● Larry Flynn of GMC Truck & Coach Div. answered a lot of fleetmen's questions about maintenance problems in power train components. You'll get a full report on that session in an upcoming issue of CCJ.

AT THE SHOW—Among scores of visitors to CCJ's roving office for the Fleet Maintenance Exposition were George E. Kelm (left), automotive supervisor for AT&T, and Robert J. Lewis (second from left), staff engineer at Shell's lubricant division, both of New York. Welcoming them aboard were Editor Bart Rawson and Technical Editor Ed Shea (standing on step)



WEIGH ALL THE EVIDENCE

*Compare the overall advantages of
INTERNATIONAL compact-design models
with other trucks in the short haul, city
delivery field. It's easy to see why they're
the choice of most major fleet operators.*

1 Lower price

Your initial savings with the INTERNATIONAL BC-Line specials range from 10% to 53%, compared to other competitive makes in the field.

2 Lower chassis weight

INTERNATIONAL designs are from 10% to 37% lighter than other makes with rear axles of comparable capacity and equipment.

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Full-width seat lets drivers get in and out easily from either side. Plus full-width cab step, full-width rear window, better "right-side" visibility... and direct-shift transmission.

Get full details from your INTERNATIONAL Dealer or Branch. International Harvester Co., Chicago, Ill.

COMMERCIAL CAR JOURNAL, December, 1961



4 *Easy maintenance*

You don't have to "tilt the cab" every time you want to get at an INTERNATIONAL engine for simple, routine service — you just raise the hood!

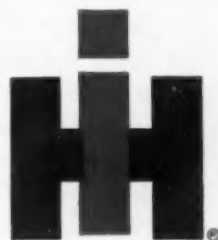
5 *INTERNATIONAL
Select-O-Matic transmission*

Torque converter with electrically-operated clutch and 5-speed synchromesh transmission gives more positive driver control and cushions shock-loads. This option (not available in BC-160) saves truck wear, cuts schedules.

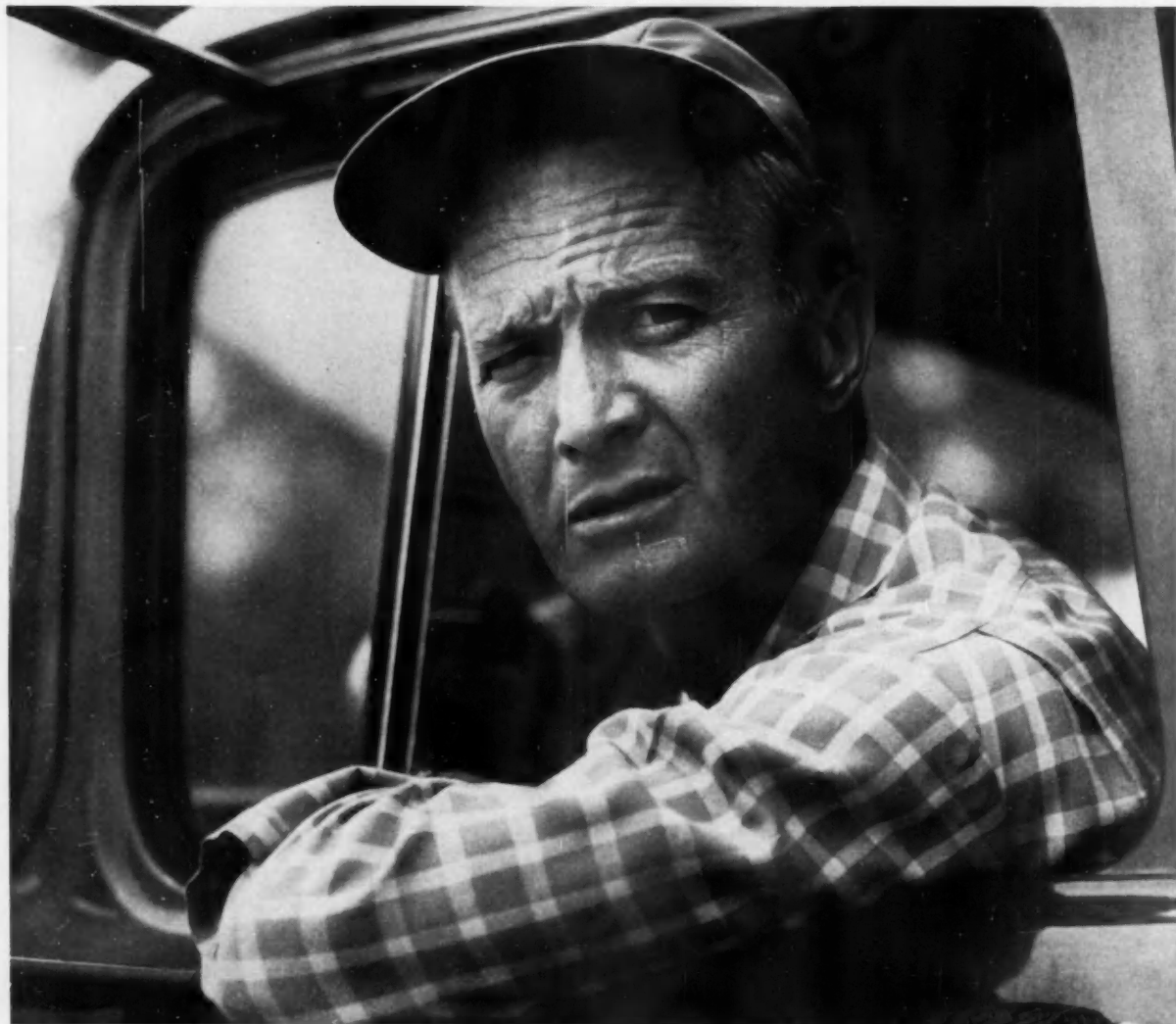
6 *Diesel economy*

You can take full advantage of diesel savings in the BC-160 Series with the INTERNATIONAL D-301 diesel engine. V-8 gasoline engine standard—6 cyl. gasoline or LPG optional.

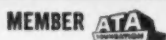
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AMERICAN TRUCKING INDUSTRY

Says who? (*We do—and here's proof!*)

When fleet tests of the new Firestone Transport-100 hit 109,000,000 miles, we knew we *had* something! Findings: up to 50% more original tread mileage and much greater drive wheel traction. It requires only 2/3 the stopping distance most other truck tires took on wet pavements. With a new 3-rib tread design, built with Firestone Rubber-X and Shock-Fortified cord bodies, the Firestone Transport-100 comes to you at no extra cost.

In nylon or Tyrex® rayon cord, tubeless or tubed, at your Firestone Dealer or Store.

Firestone
TRANSPORT-100 TRUCK TIRE



TRUCK FLEETS

CCJ FLEET MANAGEMENT REPORT

11 industry suppliers give '62 support to ATA Foundation

Renewal of support for the ATA Foundation has been received from a list of 11 present Foundation members. Total membership now stands at 33.

Renewing grants of previous years are Aluminum Co. of America (doubling its previous grants), Chevrolet, Dodge Trucks, Eaton Manufacturing, Firestone Tire & Rubber, Fruehauf Trailer, Great Dane Trailers, Midland-Ross, International Harvester, Ford Motors, and Pure Oil.

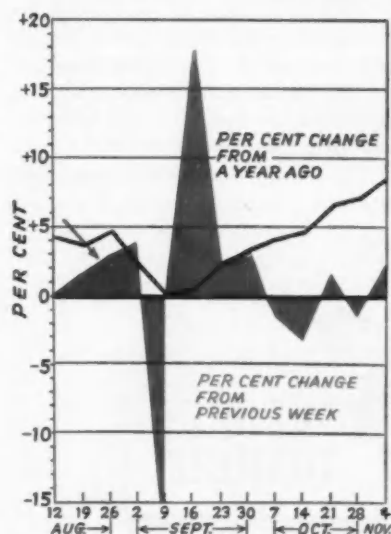
New foundation member is Allstate Insurance Co. Its grant will finance a motion picture based on the National Truck Rodeo, "Champions of the Highway."

TTMA settles on meeting

Truck-Trailer Manufacturers Assn.'s board has re-evaluated its meeting schedule. These dates stand:

Meetings on Jan. 29-31 at Palm Springs and July 15-18 at The Homestead, Hot Springs, Va.

TRUCK TONNAGE



Goldberg, Meany support Teamster rebels

Breakaway Teamster locals are beginning to get some encouragement from the government and the AFL-CIO.

AFL-CIO, which expelled the Teamsters in 1957 on corruption charges, has issued a charter which will go to the first local officially to bolt the Hoffa-led Teamsters—the Cincinnati dairy employees local.

The local voted early in November 1964 to 12 to return to the AFL-CIO.

AFL-CIO President George Meany, by issuing the charter, is now officially encouraging other Teamster locals to bolt. He says more will leave the fold soon.

The AFL-CIO has applications from 100 locals for membership, it says, but they cannot make the break until contracts and other technicalities are ironed out.

Meanwhile, Labor Secretary Arthur Goldberg has put the Kennedy Administration behind the dissident Teamsters.

He says that President Kennedy and Attorney General Robert Kennedy share his belief that Hoffa fails to "measure up to the ethical standards that should characterize labor leadership. . . ."

He also predicts more Teamster local defections, commenting that Hoffa does not have "the united and strong support within his union that his propaganda would lead us to believe."

The Labor Secretary also took this swipe at employers: "The crooked labor leader cannot exist without the sanction and endorsement of the employer with whom he bargains, whether that sanction is based on complicity or fear."

Cost cut softens cargo losses

Class I intercity motor carriers during the first half of 1961 saw total operating revenues drop by 2.6 per cent over a like period in 1960, says the ICC's Bureau of Transport Economics and Statistics.

But forewarned that costs were eating away at any possible profits, the carriers fought back the best way they could. They cut costs. Result: Operating ratios actually improved during the "off" period.

Only 96.6 cents of the operating dollar went to costs in 1961. That compares with 97.3 cents of every dollar in 1960.

Truck and tractor mileage was down some 9 per cent during the first half and tonnage was off 5.2 per cent.

ATA challenges ICC proposals

American Trucking Assns. has challenged proposed changes in

regulations for the movement by truck of explosives and other dangerous articles.

Main ATA contention: It would not improve the safety record of explosives trucks one bit.

ATA goes on to claim that safety would probably suffer through tighter rules because of increased difficulties in abiding by them.

Proposals that got under ATA's skin the most were rules which would restrict areas in which the truck could be parked, where driver was authorized to stop.

ATA in its case said, there is "no record of motor common carriers' . . . being involved in any fatality resulting from detonation of the load being transported. This in itself speaks well of the present regulation."

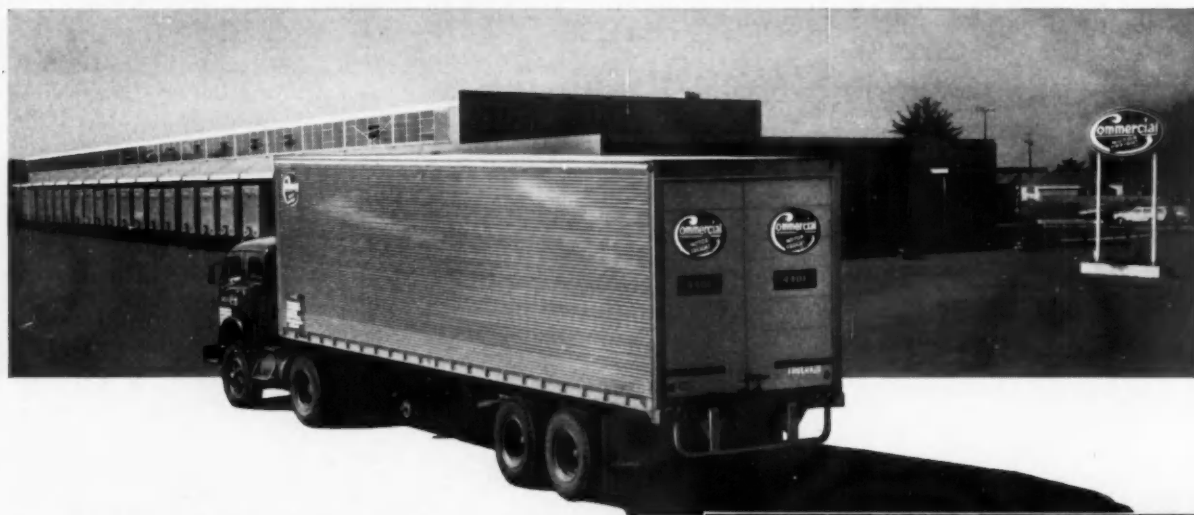
PMTA goes after railroads again

Lawyers for the Pennsylvania Motor Truck Assn. have renewed (TURN TO PAGE 153, PLEASE)

Another of the Nation's Top Carriers . . .



Another 100% FRUEHAUF USER!



Commercial Motor Freight, Inc., Columbus, Ohio, one of the nation's top carriers, has always been a 100% Fruehauf user, and has just added 100 more Stainless Steel Trailers to its fleet of 894.

Commercial prefers Stainless Steel Trailers because they're more profitable to operate. Why? Because (1) they're tougher than any other Trailer; (2) their resistance to corrosion adds years to their life; (3) they're easy to keep bright and attractive; (4) they enjoy the lowest maintenance cost and (5) always bring the highest trade-in dollar.

Commercial Motor Freight finds that standardizing on Fruehauf Stainless Steel Trailers pays off in simplification of maintenance and reliability of service. Commercial also operates 185 trucks with van bodies and 425 tractors—a fleet that aggregates more than 17 million miles a year, serving nearly 900 communities directly and providing nationwide service via connecting carriers.

Whatever your transportation needs, discuss them with the people at Fruehauf. You'll find Fruehauf Branches from coast to coast, providing sales, service and parts facilities in principal cities across the country.

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5137 South Boyle • Los Angeles 58, California



Commercial Motor Freight's newest of 22 modern terminals is at Cleveland, Ohio, boasts 70 doors and every modern facility for expediting freight handling. Its interior, normally a beehive of activity, has overhead Towveyor system to give the terminal section more than 29,000 square feet of unobstructed floor space.

"ENGINEERED TRANSPORTATION"
—The Key to Transportation Savings



GRIP ALONE WON'T GRAB A FISH



It's the same with oil seals . . . the tightest fit doesn't mean the best protection against leakage

An oil seal can fit *too* tightly. Some do, creating friction and heat that can wear down shafts, deteriorate seals and increase power loss. National bases seal design on scientific factors—shaft speed, temperature, fluid consistency and pressure, etc. That's why Syntech rubber and Micro-Torc® leather seal positively *without* excessive friction.

Synthetic rubber can be compounded and molded to meet almost any sealing situation. This versatility, together with engineering know-how, makes National's Syntech rubber seals ideal for meeting the requirements of changing automotive applications. Syntech is the preferred sealing mem-

ber under more strenuous conditions such as high shaft speeds and high temperatures.

Micro-Torc processing by National gives leather a coating of synthetic rubber with graphite. This insures protection against leakage, and keeps dirt out. Leather seals are preferred when intermittent lubricant starvation is a factor. They absorb and hold oil, providing self-lubrication.

Protect vital parts on your fleet equipment by using National Oil Seals—the most complete line available. Your National Seal distributor offers fast service on the seals you need for replacement.



NATIONAL OIL SEALS

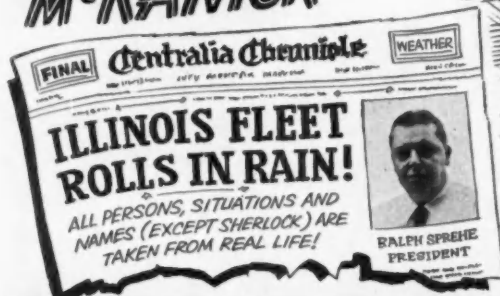
FEDERAL-MOGUL SERVICE

DIVISION OF FEDERAL-MOGUL-BOWER BEARINGS, INC. • DETROIT 13, MICH.

ANOTHER **BLUE STREAK** ADVENTURE WITH

SHERLOCK McKANICK

THE IGNITION
MAINTENANCE
EXPERT



FREE-MAINTENANCE CHECK CHART

UNIQUE NEW FLEET MAINTENANCE RECORD CARD. DESIGNED TO BE KEPT IN VEHICLE, READY FOR INSTANT REFERENCE BY DRIVER OR SUPERVISOR. LISTS TUNE-UP SPECS, PART NUMBERS.

GET ONE FOR EVERY VEHICLE IN YOUR FLEET.
WRITE TODAY FOR FORM 1565.

HEAVY-DUTY
IGNITION FOR
PROFIT-CONSCIOUS
FLEETS

BLUE STREAK

STANDARD MOTOR
PRODUCTS, INC.
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REGULATORS • SWITCHES • COILS • CONTACTS • CONDENSERS • WIRE and CABLE

CCJ FLEET MANAGEMENT REPORT

The horses are at it again

Look for a "horse race" between Ford and Chevrolet as the year progresses. Both companies have higher-displacement engines in the works, may even spring them during the next few months. In effect, a quiet new horsepower race may be underway.

Both companies are now very flexible in manufacturing operations, can move quickly on new engine developments.

Chevrolet tops Ford at the moment with a new 409-cu in., high-performance powerplant which was brought out earlier in the year.

Ford, which offers a 390-cu in. job, has a new engine ready to announce anytime. With special carburetors and other gadgets, both Chevrolet and Ford can now top the 400-hp mark.

But there's more to come. "It won't be long before you see 500 horses," says one factory source.

Paradox: Used car prices hold

Used car sales tend to take a sharp dip when new car announcements are in the headlines. The trend usually lasts for weeks following the fall debuts.

This year, however, used car sales held up right through the announcements—a complete reversal of typical patterns.

In fact, stocks are reported well below a 30-day supply with 1961 used models showing less depreciation than their 1960 counterparts.

Ford's 'doodlebug' put off again

Announcement schedule for Ford Motor Co.'s little Cardinal has been pushed back again—maybe until the 1963 models are presented.

It's now undergoing final tests and changes at Ford's Romeo, Mich., proving grounds.

Assembly plants are reportedly being readied in Louisville, Ky., England and Germany. And auto makers all over the world are bracing for a global

price war in the "very-low-price" field when Ford challenges such makes as Volkswagen and Renault.

What will it look like? Probably like a miniature Falcon. Its V-4 engine will be in the front, with a front-wheel drive.

More on 100,000-mile warranties

Possibilities of 100,000-mile warranties on some car parts are closer than you think. Factory service officials are now studying such a move—and its possible impact on their dealers' service business and the general public.

Now, they're even talking about 100,000-mile chassis lubrication intervals. Victor Raviolo, executive director of Ford's engineering staff, says it will be possible through continued reduction in the number of points requiring grease or oil.

Chrysler hires Ford's stylist

Chrysler Corp. has hired Ford's Elwood P. Engle, chief stylist of advanced and international styling, to replace the man who is credited with putting fins on Chrysler's 1955 cars. Virgil Exner, who called the use of fins "wedge shape" styling, resigned.

Engle will be in charge of all styling functions within Chrysler.

Economy Run still growing

The world's largest stock car competition, the annual Mobil Oil Economy Run, is getting bigger each year. Next year's run will cover more than 2000 miles between March 31 and April 5.

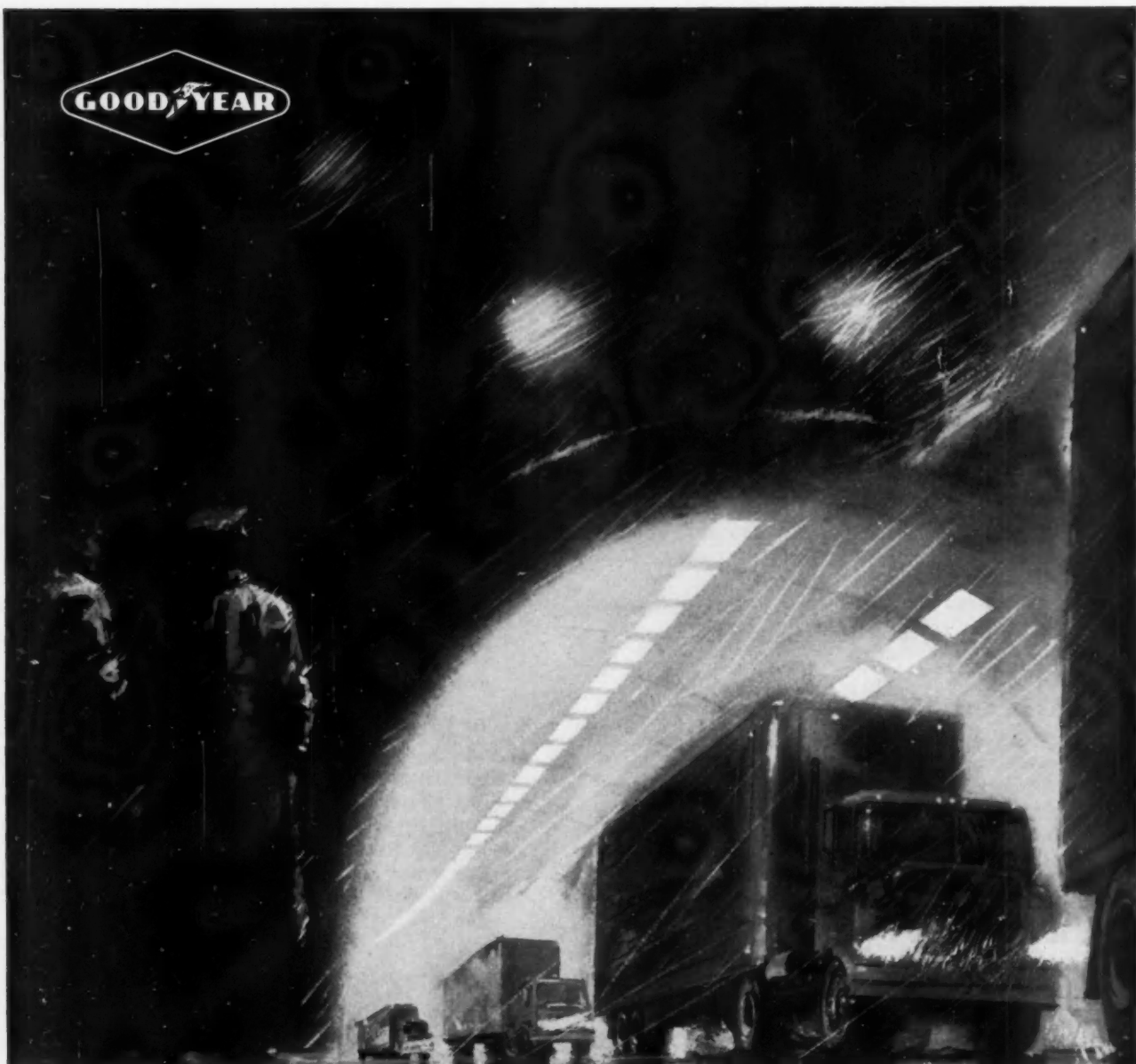
It starts in Los Angeles and, for the first time, terminates in Detroit. That's the longest stretch in history for the run (last year it ended in Chicago).

Exact route, as usual, is kept secret to prevent drivers from practicing the course.

CHEVY'S 50, TOO—Chevrolet, like CCJ, is celebrating its 50th anniversary this year. And if you've ever doubted the progress in automobiles during these years, just take a look at the paraphernalia Mr. and Mrs. Motorist had to don years ago just to take the old buggy for a spin. Executing the striking comparison above are a '62 Impala and a recreation of one of Louis Chevrolet's original 1911 Chevy models



GOODYEAR



New!! Super Cross-Rib Boosts traction and

IMPORTANT FEATURES OF ALL-NEW SUPER CROSS-RIB

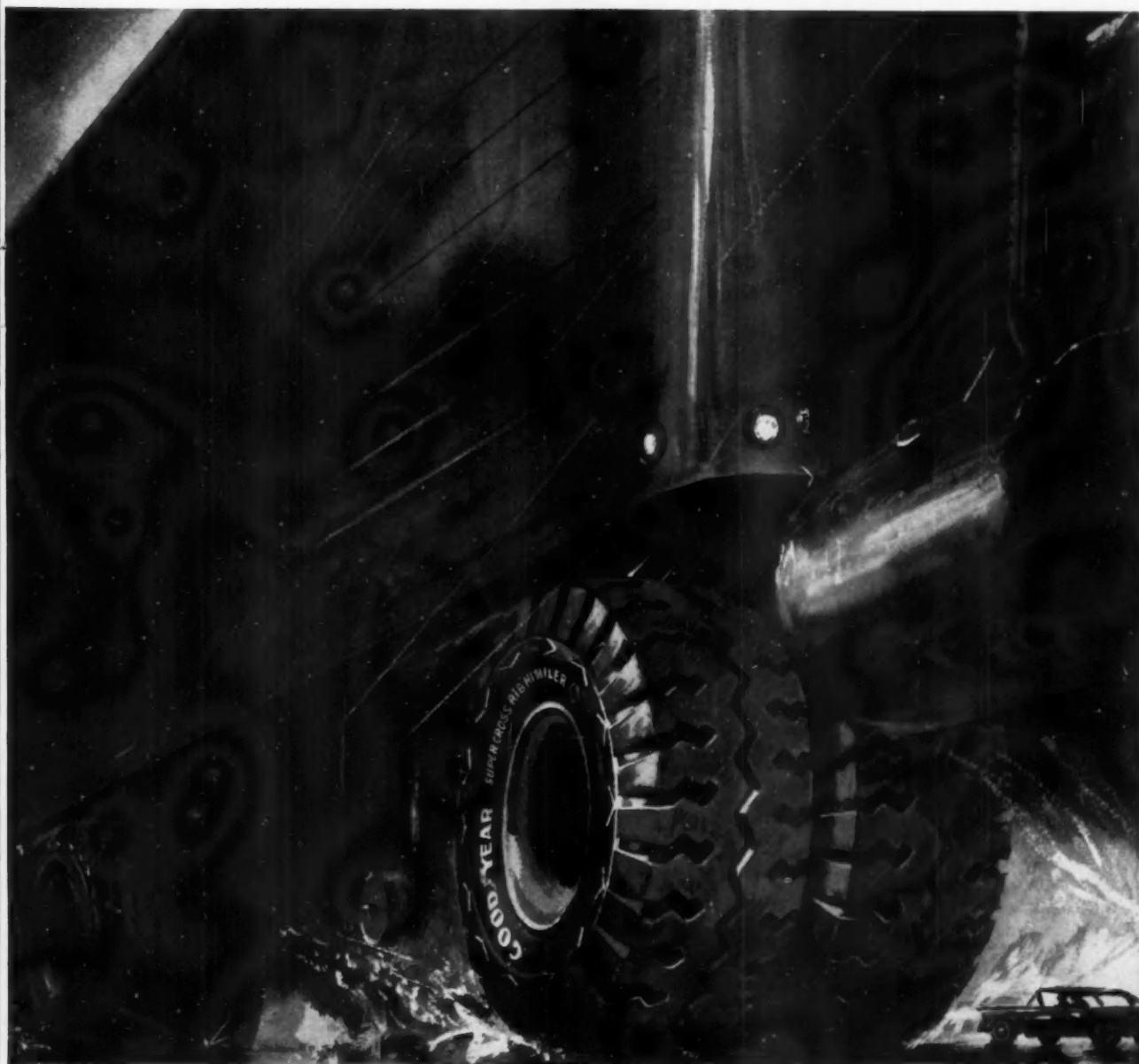


- New center groove greatly increases lateral traction with excellent forward-backward traction
- New lateral groove and shoulder design lowers running temperatures as much as 15°
- New "dual compounding" gives much longer wear and body life
- New stabilization after cure gives tire more of an "in-use" shape for much greater general durability

Now, from Goodyear, comes a new level of premium performance in extra-depth truck tires—a new combination of long mileage, traction and durability—the new Super Cross-Rib.

The Super Cross-Rib brings you these new, moneysaving features:

- New, deep, scientifically designed center groove creates, in effect, two treads—many additional biting edges—much greater lateral and excellent forward-backward traction.
- Newly designed lateral grooves and shoulders reduce heat buildup—lower running temperatures as much as 15°.
- Special "dual compounding" teams a more resilient inner tread with a super-toughened outer tread—flexing



doubles drive-wheel mileage durability to new highs

and heat buildup are restricted—body life and mileage are substantially increased.

■ Extra stabilization after cure relieves stresses and strains in tire body—increases durability of tough 3-T Process Nylon Cord—adds greatly to tire body life.

These features add up to the new Super Cross-Rib, giving you twice the drive-wheel mileage of conventional

tires—much greater traction than other extra-depth tires—safer, lower cost-per-mile operation.

Buy or specify Super Cross-Ribs or any of the long-wearing Goodyear truck tires. See your Goodyear Service Store or Dealer, or write Goodyear, Truck Tires, Akron 16, Ohio. And be sure to ask about the *free, cost-cutting* Goodyear Mileage Engineering Service. Remember, lots of good things come from Goodyear.

MEMBER OF ATA FOUNDATION OF THE AMERICAN TRUCKING INDUSTRY

GOODYEAR

Buses finally out-pull trains

America's traveling public has for the first time shown a favoritism for intercity travel by bus over the services offered by the railroads. Rails dropped from 21.2-billion passenger miles last year to 19.5-billion (expected) this year.

Buses, on the other hand, are expected to record more than 20-billion passenger miles by the end of this month.

Thanks to new roads

Reason: Besides personal service, which is often superior to that offered on trains, bus fleetmen can thank the new interstate highway system and turn-pikes.

They've been running circles around trains—and airplanes—on their center-city-to-center-city runs ever since substantial numbers of super-highways opened. Train schedules are often inflexible. Bus

schedules are altered quickly, and can frequently offer the best fares, best travel time in the field.

How to get TV ads: Swap for 'em

Kansas City Transit has found a way to get television advertising time—with no out-of-pocket expenses. They're swapping bus card space to the television station in return for ten 10-second spot announcements per week. Each side pays the other for its services, but it cancels out.

Greyhound cuts fare to Florida

Greyhound Corp. has announced another special fare package in its series of special fares for special purposes. This time it's reduced round trips to Florida from many Northeast and Midwest cities. The cut: 50 per cent off the return fare if the round trip is used within 45 days.

Flxible's electronic bus seen as key to future 'bus train'

The Flxible Co., Loudonville, Ohio, has put transit equipment one step into the future. Its diesel-powered electronic bus can start itself, stop itself, and maneuver its hulk through a 108-in. opening.

Possibilities for the unit are almost limitless. It combines principles long talked of, could make automated buses a reality with completion of a super-road now under construction. Here's how it works:

\$5000 driver

The electronic "driver" is a \$5000 unit produced by Barrett Electronics Corp., Chicago. It follows an electric cable imbedded in the roadway. The cable also commands it to start, to stop, how to steer and the speed it should travel. No highway or street is needed either—the bus can run on two concrete "tracks."

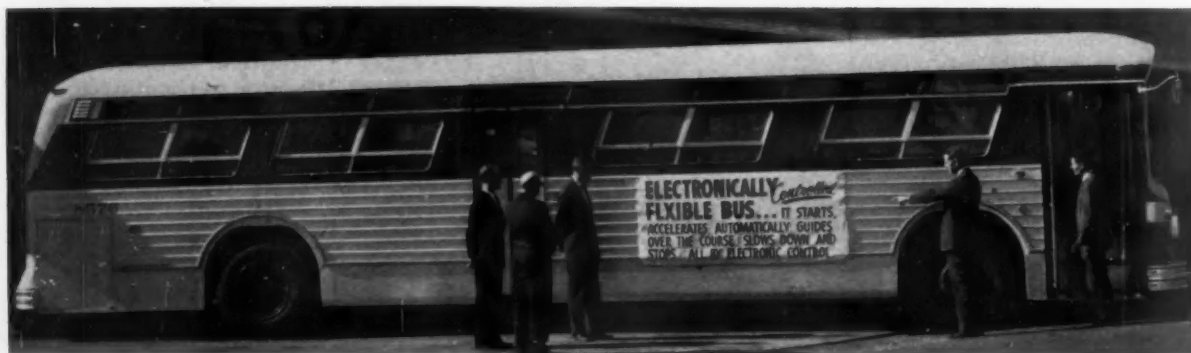
When you board an electronic bus near your home in the suburbs, it probably will be driven by a

driver. When you reach a terminal or expressway entrance, the bus will be pulled in to nudge a long line of similar units. You'll now be part of a long bus train that makes the final high speed trip to center city. At a central terminal the buses will again be disconnected for dispersing their passengers to separate parts of the downtown area.

Frees drivers

Advantages, says Flxible: Drivers would be needed for feeder-line service only. Passenger transferring would be at a minimum. Roadway costs would be less than for steel tracks used on today's trains.

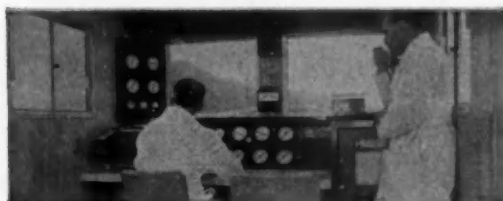
How near is such a system? Flxible says that mechanically it works. Chicago Transit Authority is studying the possibility of running the bus trains on its Southwest Expressway when it opens three years from now. CTA is already testing a driverless unit to determine alternate speeds and costs.



BENDIX TEST/RESEARCH PROGRAM GOES EVERYWHERE TO BRING YOU BETTER BRAKES

One part of the Bendix brake test program—the most extensive in the world—is this mobile laboratory that proves out brake designs under actual highway conditions. These “rolling labs” carry advanced brake testing instruments, manned by experienced engineers. Recorded and analyzed are: air and hydraulic actuating pressure; deceleration; stop time; lining, drum, and hydraulic fluid temperatures; travel of actuating cylinder pistons; stopping distance. Tests are made under all kinds of driving, road, and weather conditions. For help with *your* brake problems, write us at South Bend, Indiana.

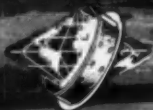
See the Bendix exhibit
at the SAE Show, Detroit, January 8-12




Bendix Products Automotive Division



BRAKE HEADQUARTERS OF THE WORLD





HOW LONG SHOULD THEY LAST?

Even under the toughest operating conditions . . . stop-and-go driving plus long hot runs . . . many fleet vehicles using RPM deposit-free Motor Oils have gained 100,000 miles of extra engine life before major overhaul. Documented case histories show "RPM" protects so well, an engine can actually outlast the life of the equipment, saving hundreds of dollars in overhaul costs.

Call our local representative or write any of the companies listed below to find out how you can save using "RPM." One thing is sure—RPM deposit-free Motor Oils cost a lot less than engine parts.

STANDARD OIL COMPANY OF CALIFORNIA
San Francisco 20

STANDARD OIL COMPANY OF TEXAS
El Paso

CALIFORNIA OIL COMPANY
Perth Amboy, N.J.—Denver

More details? Circle 116 on reply card inside back cover

TRADEMARKS "RPM" AND CHEVRON DESIGN ®





put your profits into focus..or.. steady profits require steady driving

Ride on a bouncing, jolting, vibrating truck seat and you soon *feel* the effects on driver efficiency and productivity. Check drivers who do and don't ride on Bostrom Viking T-BAR* Suspension Seats and you quickly *see* the differences in their "earning power."

Viking T-BAR seats eliminate the fatiguing effects of rough riding—keep drivers alert, industrious and at maximum efficiency. They stay at the wheel more steadily. They keep going, with shorter or fewer stops—maintain closer schedules. They feel better, work better day after day.

Your profits reflect these benefits. It pays to equip all your trucks—new and old—with Bostrom Viking T-BAR Suspension Seats. Specify them from your truck dealer or parts distributor.

MEMBER **ATA** FOUNDATION INC. AMERICAN TRUCKING INDUSTRY

BOSTROM CORPORATION
133 West Oregon Street • Milwaukee 4, Wisconsin



*Reg. U.S. Pat. Off.

New Viking T-BAR seats employ an advanced, simplified concept in suspension systems. Durable steel torsion bars soak up road shock and vibration; built-in shock absorber removes extra roughness; contour cushions further reduce back slap; back rub doesn't exist. Minimum maintenance required. No other truck seat can possibly match it!

We've got the COMPLETE QUALITY
line of parts and accessories!



**WHATEVER PART YOU NEED
... MOPAR'S GOT IT**

Now MoPar offers a COMPLETE QUALITY line of parts and accessories for most popular makes of vehicles.

For CHRYSLER CORPORATION vehicles... GENUINE "NEW" MOPAR PARTS AND ACCESSORIES... MOPAR APPROVED REMANUFACTURED PARTS

For OTHER MAKES of vehicles... NEW MOPAR PARTS WITH UNIVERSAL APPLICATION... REMPAR QUALITY REMANUFACTURED PARTS

New or remanufactured—these parts fit right, work right, install quickly—save labor time, help keep jobs rolling on schedule.

For fast, efficient service and delivery—for any order of any size—just reach for the phone and call your MoPar Parts Wholesaler, or Chrysler Motors Corporation Dealer.

For Quality Parts and Accessories—you name it... MoPar's got it!



MoPar Parts and Accessories, Chrysler Motors Corporation, Detroit 31, Michigan

VEHICLES & EQUIPMENT

CCJ FLEET MANAGEMENT REPORT

Glass containers, tires, smog control, spark plugs, Scouts

Here's a roundup of recent developments which could affect your vehicle and equipment purchasing habits:

- American-Wheaton Glass Corp. has worked out a way to ship glass bottles on pallets without first packing the bottles in cartons. Automatic equipment does the job by laying corrugated board between each layer of bottles. System allows as many as 7000 bottles on one pallet, costs about 1/8 as much as packing them in cartons.
- Goodyear has dropped truck tire prices by 5 to 23.2 per cent in an attempt to hold list prices nearer selling prices. Don't expect the cuts to have much effect on the prices you'll pay, say tire industry sources.
- Californians, who will be required to put anti-smog devices on vehicles before long, probably will have to pay an average of \$47 per vehicle for the devices. The question of cost is now under study. State Motor Vehicle Pollution Control Board feels it can settle on devices which will cost less than 1/2¢ a mile for installation and maintenance.
- International Harvester has begun production of its Scout with right-hand drive (\$14 extra). Another new Scout option: Power

take-off outlet extension drive with offset gear box. IH will market a number of rear-mounted equipment items for the unit.

New standards for retreads

Rubber Manufacturers Assn. has established new standards for percentages of undertread thickness which should be present in a retreaded tire.

Minimum amount in any retreaded tire, regardless of the depth of tread design: 2/32-in. at tread center line, more on shoulders.

These types of tires should have at least 20 per cent undertread skid design depth: All passenger car tires, light truck tires (highway, heavy tread, or mud and snow), and heavy lug truck and bus tires (on and off the road, up to and including 11.00 cross section, mud and snow designs through 14.00 cross sections.

At least 25 per cent: Truck and bus tires for highway use (all sizes up to and including 14.00 cross section), off-the-road tires (traction designs through 30.00 cross section), and industrials.

Extra heavy highway design truck tires should have 15 per cent of skid design depth in the undertread.

Maximum undertread thicknesses should be no more than double these minimums.

SAE Congress next month will forecast future of fleet vehicles

Automotive Engineering Congress and Exposition in Detroit's Cobo Hall, Jan. 8-12, will forecast things to come for the fleet industry.

The show, sponsored by the Society of Automotive Engineers, can hold a double value for you. Primary importance, of course, is the congress, which serves as a clearinghouse for the automotive industry's engineers. They'll report on recent developments, discuss design problems.

Latest in products

Simultaneously, a giant exhibition by more than 300 manufacturers at 500 booths will draw 25,000 or more visitors. This year's show, incidentally, is expected to be the biggest in history.

Fleet men may attend both the Congress and exposition, whether they're SAE members or not. Registration fees run from \$1 a day for the exposition to \$12.50 for the full five days of sessions.

Here are highlights which could be valuable for fleetmen:

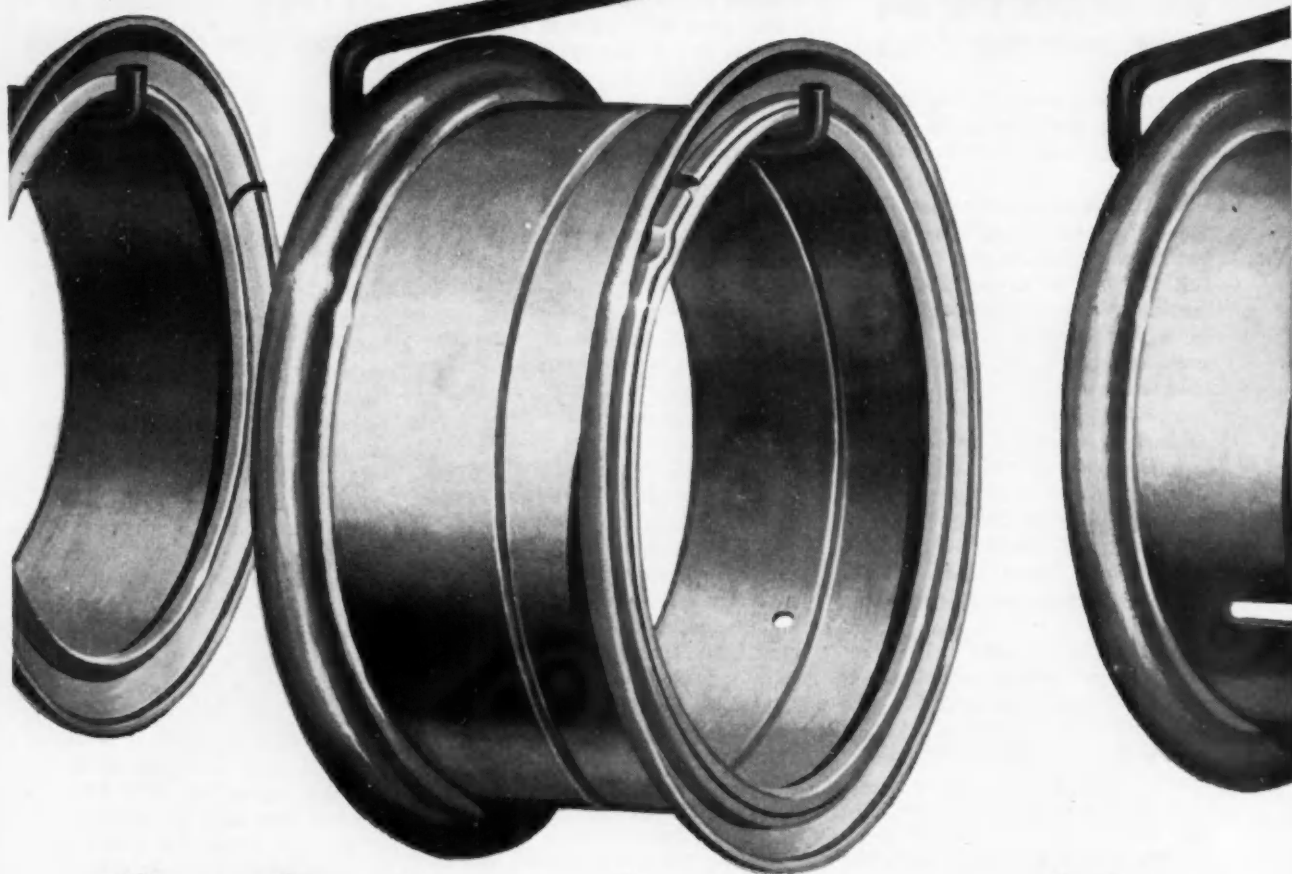
- **Passenger cars**—"Diesels for Medium and Light Duty Trucking and Taxicab Applications"; "Brake System Road Test Code for Automotive Vehicles"; "Chassis and Underbody Design Details" (Ford and Chevrolet); "Semi and Fully Automatic Drives" (The "E-Stick" mechanism for compact cars); "New Engines for the 1962 Cars"; and "Two-Ply Tires" (including a roundup of fleet experience).

- **Trucks**—"Economics of Motor Vehicle Size and Weight" (Line-haul truck cost in relation to GVW); "Diesels for Medium and Light Duty Trucking and Taxicab Applications" (also in passenger car section); a utility vehicle workshop on engine speed governors and power-takeoff systems; and "Diagnosing Impending Vehicle Failures."

PRODUCTION

In thousands of units, except bus sales are in actual numbers	New Truck Registrations		Truck and Bus Factory Sales—Domestic		Trailer and Trailer Chassis Shipments		Truck and Bus Tires			
							Original Equip. Shipments		Replacement Shipments	
	Sept.	9 Months	Sept.	9 Months	Sept.	9 Months	Sept.	9 Months	Sept.	9 Months
1961	74.8	675.1	66.8	661.8	4.7	38.9	279.4	2652.1	885.4	7039.1
1960	78.1	728.6	66.2	763.1	4.1	51.2	273.4	3140.1	810.8	7110.5

For complete details on this summary chart, see page 75.

The Goodyear logo, featuring the word "GOODYEAR" in a stylized font inside a diamond-shaped border.

Now Goodyear rims are precision-

These new Goodyear precision rims, for over-the-road use, are built to such close tolerances they better industry standards by a *full fifty per cent.*

What's more, Lateral and Radial Runout will not exceed $1/32$ of an inch.

For *equipment manufacturers* this means a complete line of over-the-road rims to match the most accurately made wheels for use on their equipment.

For *fleet owners and operators* the immediate benefits are longer tire mileage, less down

Lots of good things come from

GOOD



built to run 50% truer

time and a lower cost-per-mile operation. Vibration is markedly reduced and so is driver fatigue.

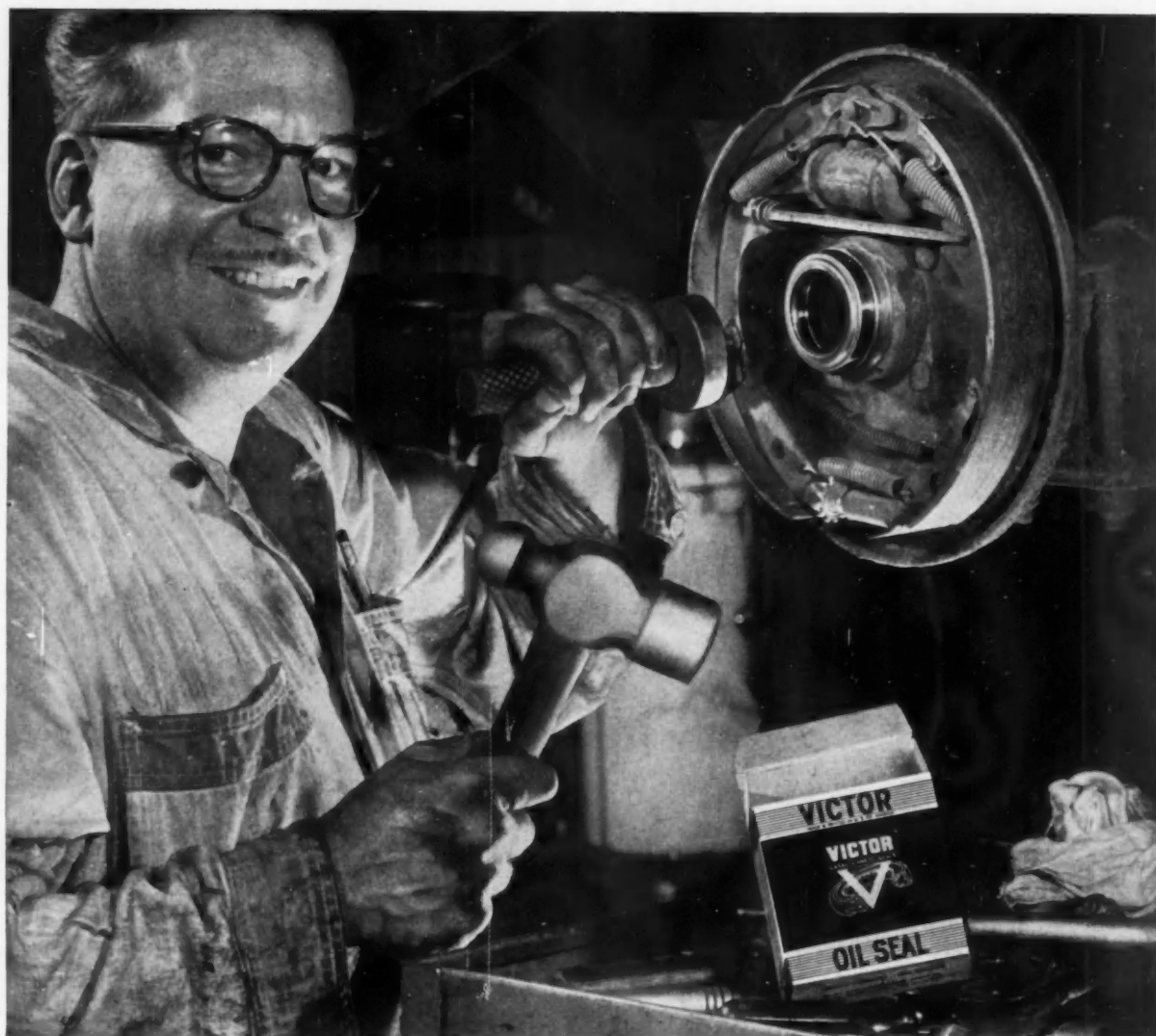
Whether you're a manufacturer or the owner of one truck or of an entire fleet of trucks, it will pay you to specify these revolutionary

new rims. For additional information on what they can do to improve operating efficiency and lower your costs, write Goodyear, Metal Products Division, Akron 16, Ohio. Or, if you prefer, get in touch with your local Goodyear Rim Distributor.



More tons are carried
on Goodyear rims
than on any other kind

VICTOR ORIGINAL EQUIPMENT SEALING—SINCE 1909



"Give Me Factory-Specified Parts

TO KEEP 'EM ROLLING—Every Time!"

More truck and car factories use Victor Oil Seals than any other make. Victor supplies these same seals for replacement . . . and you can't beat original equipment specifications for faster repairs, proper fit and tight sealing. That's mighty important when you've got to keep fleet units running up profitable miles—safely—instead of eating up profits with down time. Call your Victor Jobber—he'll show you what full line availability in quality oil seals really means!

Victor Mfg. & Gasket Co., P.O. Box 1333, Chicago 90, Ill. Canadian Plant: St. Thomas, Ontario

VICTOR ORIGINAL EQUIPMENT
OIL SEALS

Jinx to depreciation reform bill could be defense, welfare costs

The Administration is still backing reform of equipment tax depreciation as a stimulus for business investment. But the White House has written off hope of any general tax cuts next year. It even hints that some tax boosts may be necessary to pay for rising defense and welfare programs.

Equipment modernization

Treasury Secretary Dillon says more rapid equipment modernization is vital. The Department is now reviewing its "useful lives" yardsticks which determine the rate of tax depreciation on your equipment, on fleets and similar property.

In addition, the White House will try again next year to get Congress to approve a tax credit for investment in new equipment. An eight per cent credit was tentatively approved this year by the House Ways and Means Committee.

Illinois ferrets out mileage tax evaders—it's in the books

Fleet operators who have been making guesstimates of vehicle mileage for Illinois license proportioning are under new scrutiny from that state's secretary of state.

He called in a team of sleuths to pinpoint inaccurate reports—and got the answers through fleets' records. His sleuths are private auditors (state auditors are now being trained to take over the task).

Estimates were low

Result of the first 20 fleet checks: The state is getting enough extra money from fleets' low estimates to pay for a fulltime search, have a substantial amount left over for the state's kitty.

In cases where fleets have not kept an accurate day-to-day record

Kennedy keeps mum on transportation policies, but Martin outlines goals

Transportation industry probably won't know the Kennedy Administration's final cures for its ills until next year, when the President asks Congress to act.

White House spokesmen in mid-November told *COMMERCIAL CAR JOURNAL* that "several recommendations" had been forwarded from the Commerce Department at the Nov. 1 deadline. But they will first be reviewed by the White House and other agencies, including the ICC. They would then be used as the basis of a request to Congress for transportation legislation early next year.

Five goals

However, a general outline of the results of the latest Commerce Department study of the transportation industry has been sketched by Under Secretary for Transportation, Clarence D. Martin, Jr. He lists five major points:

- Realistic tax and equipment depreciation policies for all carriers, with unjust and undue discrimination in state and local

taxes declared an unlawful burden on interstate commerce.

- New standards of rate-setting policy should be developed to end damaging rate wars.

- Federal government should not obtain free or reduced rates from common carriers except under the normal regulatory process. It should pay charges subject to the same standards as those governing private shippers.

- Private carriage and exempt transportation should be redefined and new standards set. They should be barred from invading the for-hire field.

- Clear and definite policy on user charges for carriers using facilities and services of the federal government should be set. User charges for motor and air carriers have been endorsed by the President. And serious consideration should be given to extending this to other areas. Rate-making rules should be revised to prevent other carriers from gaining an undue competitive advantage over water carriers.

of all mileage for every vehicle, the auditors have been reconstructing the vehicles' movements, making estimates of their own.

ICC 'Sealtdank' decisions stand

Interstate Commerce Commission has refused to reconsider its "Sealtdank" decisions which set up authorities for hauling certain


types of commodities in Sealtdank-like containers.

In those decisions, ICC established tank truck authority to allow use of the collapsible and stackable containers if the container remained fixed on the vehicle, was not removed for filling or emptying.

General commodities carriers, on the other hand, can use them if they're loaded onto the vehicle after being filled, removed before being emptied.

Sweetheart BREAD





This is
AMERICAN OIL COMPANY
in action

A 2,400-mile-a-week workhorse gets a check from American Oil's Brad Bradley (left) and Sweetheart Bread foreman H. L. Congdon.



BY W. A. "BRAD" BRADLEY

About the Author. Brad Bradley has the experience and training to qualify him as a lubrication specialist. Brad has been providing customers with technical service on lubrication for 17 years. Brad attended Northland College, in addition to having completed his Company's Sales Engineering School.

★ ★ ★

A 400-mile run every day, six days a week! On such rugged over-the-road service an International 195 unit of Sweetheart Bread Company, Billings, Montana, has logged 240,758 miles *without an overhaul*. The truck has used AMERICAN S-1 Motor Oil since going into service.

A thorough preventive maintenance program is carried out on each Sweetheart Bread unit by fleet foreman Loyal Congdon and his crew. Oil is changed during this P.M. check. In spite of the mileage on this unit, the oil consumption is very low.

Three other units in the Sweetheart Bread fleet have similar performance records. One logs 440 miles a day and two units each put on 300 miles a day. All use AMERICAN S-1 Motor Oil.

AMERICAN S-1 Motor Oil is formulated to meet unusually severe engine operating conditions. It gives the greater detergent action needed of a lubricant in diesel engines burning high sulfur fuels. It effectively controls formation of varnish, sludge and carbon-like deposits on engine parts.

AMERICAN S-1 Motor Oil is available to you from your nearby American Oil office.

Quick facts about AMERICAN S-1 Motor Oil

- Formulated to meet demands imposed on oil by severe service and/or high sulfur fuel.
- Controls formation of varnish, sludge and carbon-like deposits.
- Additives (1) help it maintain oxidation stability, (2) prevent bearing corrosion, (3) minimize wear.



AMERICAN OIL COMPANY

910 South Michigan Avenue,
Chicago 80, Illinois.

More details? Circle 121 on reply card

FOR A BETTER AND LONGER-LASTING SEAL ON ALL CHRYSLER WHEEL CYLINDERS* SINCE 1956..

it's the
NEW..
exclusive

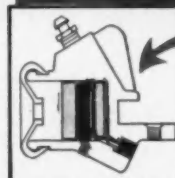
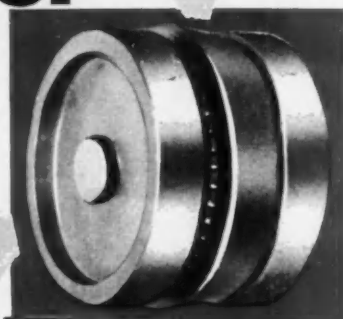


PISTON with the patented RIBBED CUP

Here's the perfect answer to wheel cylinder leaks on Chrysler Products Cars* ... the NEW and exclusive-with-EIS leak-proof PISTON and patented RIBBED CUP combination! The piston is anodized aluminum ... the ribbed cup (moulded of HRC†) is the proven performer that has been successfully used in millions of Chrysler Products installations since 1941!

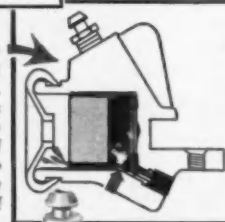
Sound EIS engineering has gone into this piston-cup combination. The flexible ribs on the cup ... an EIS patent ... provide the proper pressure at the point of seal ... insure smooth piston movement all the way! That's what makes for a leakproof, longer-lasting seal ... that's why you should use these new EIS Pistons in your next Chrysler Products wheel cylinder repair job!

EIS combination leak-proof Pistons with Ribbed Cups are incorporated in all EIS Wheel Cylinders designed for replacement on Chrysler Products. They are also available in NEW GD-P Repair Kits containing 2 (1-1/8") Pistons, 2 Cups, 2 Boots and Springs.



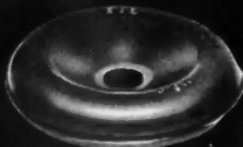
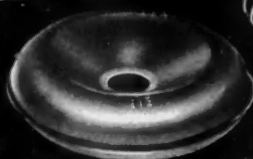
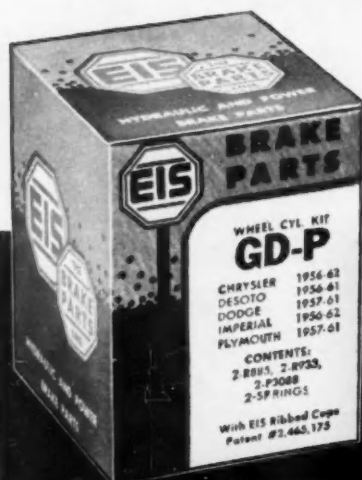
WHEN EIS INSTALLATION IS MADE ... point-of-seal is intact even though piston assembly is pushed all the way into cylinder!

WHEN ORDINARY INSTALLATION IS MADE ... point-of-seal is broken when piston and cup are pushed all the way into cylinder, causing leaks and failure!



FOR CHRYSLER PRODUCTS CARS 1946 through 1955 ...

Use the EIS CA-P Wheel Cylinder Repair Kit. Contains 2 (1-1/8") Anodized Aluminum Pistons with Flexible Ribbed HRC† Cups plus 2 Boots.



†HEAT-RESISTANT COMPOUND

SPECIFICALLY DESIGNED FOR REPLACEMENT ON

CHRYSLER	1956-62
DESOTO	1956-61
DODGE	1957-61
IMPERIAL	1956-62
PLYMOUTH	1957-61



MASTER CYLINDER KITS • WHEEL CYLINDER KITS • MASTER CYLINDERS • WHEEL CYLINDERS
POWER BRAKE KITS • POWER BRAKE PARTS • HOSES • TUBING • BRAKE FLUIDS • BRAKE BLADDERS
BRAKE CABLES • HOLD DOWN PARTS • POWER BRAKE TESTERS • BRAKE CUPS • TOOLS
HYDRAULIC CLUTCH REPAIR KITS AND CYLINDERS • CYLINDERS AND KITS FOR IMPORTED CARS

DESIGNING
ENGINEERING
MANUFACTURING
all under one roof

Ask your EIS Distributor or write for catalogs

EIS AUTOMOTIVE CORP., Middletown, Conn.



LUBE LOGIC

FOR FLEET OPERATORS

Install inserts this way...and give your bearings a longer lease on life

How you install bearing inserts is one of the biggest factors in determining how your bearings are going to behave. A little extra care when installing the inserts not only makes your bearings run better — but also last longer. Here are a few pointers to watch:

1. Cleanliness. See that both caps and inserts are spotless. Dirt between cap and insert is a major cause of bearing failure.

2. Measurement. Don't guess — make sure you've got the right inserts for the caps and journal diameter.

3. Fit. Double-check to see that bearing inserts are snug in their caps. Check spread and crush. Bearing ends should project about 0.002" beyond the surface of the caps to get a right fit and the right crush. Don't file parting edges or use shims — unless the bearing manufacturer tells you to.

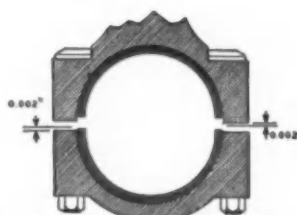
4. Journal Condition. Dress crankshaft to a fine lapped finish. Be sure all wear ridges are removed. Never install bearings on out-of-round or hour-glass-shaped journals.

5. Crankshaft cleaning. Make certain all oil ways are clean and all oil holes are open when bearings are installed. See that the oil holes in the bearings line up with oil holes in the crankcase saddle bores — or with the holes in the connecting rods.

6. Alignment. Check alignment of crankshaft and connecting rods.

7. Lubrication. Oil new inserts and cylinder walls. Fill the crankcase. Idle engine until oil pressure gauge indicates oil passages, filters, coolers, etc. are full of oil.

8. Torque. Set up bearing caps evenly with a torque wrench to the specified torque.



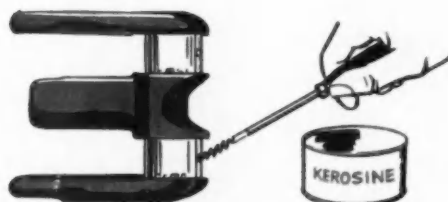
Assure tight fit and correct crush by having bearing ends project about 0.002" beyond surface of rods and caps.



Assure maximum bearing load carrying capacity by making sure all rough shafts or pin surfaces are refinished and lapped.



Assure even pressure on both sides of bearing by using a torque wrench, set to manufacturer's specification. Make sure reading is identical for both sides of bearing.



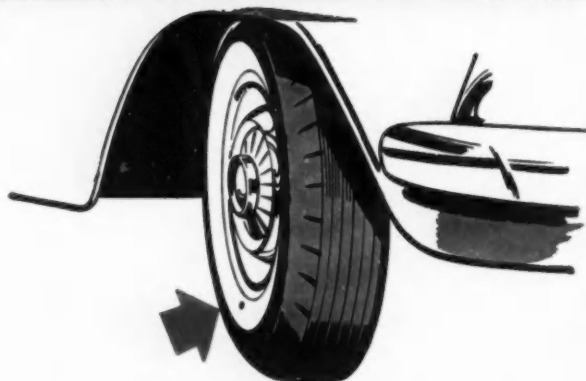
Assure essential lubrication by swabbing and flushing all oilways. Use a fine wire brush followed by flushing oil or kerosine and a clean air blast.

THERE'S MORE
INSIDE:

Trailin' the Mail
with Al

New tips for trimming
maintenance costs

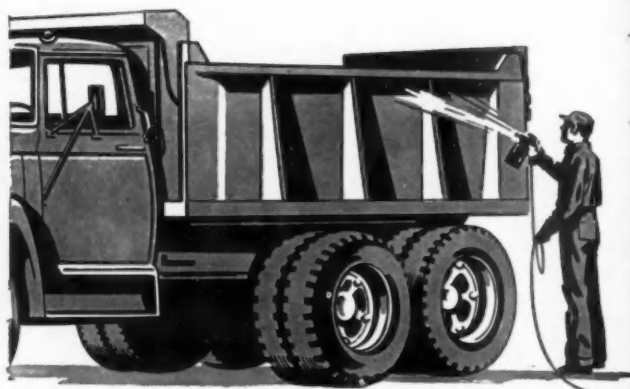
TUBE LOGIC



Look for the scribe mark to balance new tires

Tire valves are lightweight items, but when they're spinning around on a wheel at road speed, they become quite a bit heavier. To prevent any chance that this off-center weight will result in unbalanced tires, many tire-makers put a dot or arrow on the tire to show the point on the tire that should be closest to the valve stem. This precaution is true of tube-type tires that will be used on independently suspended wheels — the front wheels on most fleet cars and light trucks. Wheels on rigid axles, with leaf-springs, aren't so sensitive to this degree of unbalance.

Four new tips



How to make truck exteriors and dry cement part company

Having your trucks and trailers covered with dry cement might be fine if you were filming "The Ghost Fleet," but for every day, caked cement isn't doing your equipment one bit of good. Here's an easy way to prevent it from staying on your equipment: Spray the exteriors completely with Texaco Soluble Oil C. Then . . . oil and accumulated cement come off in one easy washing.



Trailin' the Mail with AL

Shoot in your puzzlers to "Trailin' the Mail with AL," at Texaco's Fleet Sales Division, 135 East 42nd St., New York 17, N. Y. There's a real fine group at the Division — ready to serve every "on-wheels" fleet from coast to coast.

LOCATING A SMALL SHORT

Dear Al:

One of our pick-ups has chronic trouble with batteries going dead. I've had no luck trying to track down the trouble. Wonder if you can help me.

The first time around, I dropped in a new battery and replaced both cables. Next day, the battery was dead. Since even new batteries are sometimes defective—without our knowing it—I dropped in another new battery.

The truck worked fine — but only for a few days. Then the battery went dead again. I recharged the battery, checked the voltage regulator and generator, but again, the pickup only ran for a few days.

This time I replaced wire from distributor to the ignition coil (ignition switch was OK); replaced starter solenoid; replaced distributor points, con-

denser and spark plugs; checked and found ground cable from starter solenoid OK and making a good ground; checked starter motor and found that OK; checked everything else I could think of. *But the battery was still discharging.*

I'd be glad to have your thoughts on this problem.

J. P. El Paso, Texas

The culprit is probably a ground, or short circuit — a very tiny one, one ampere or less because it takes about 72 hours to discharge a 50 ampere hour battery.

Looking for a short like this is a "needle in the haystack" type deal, but here's a trick that will make the search easier:

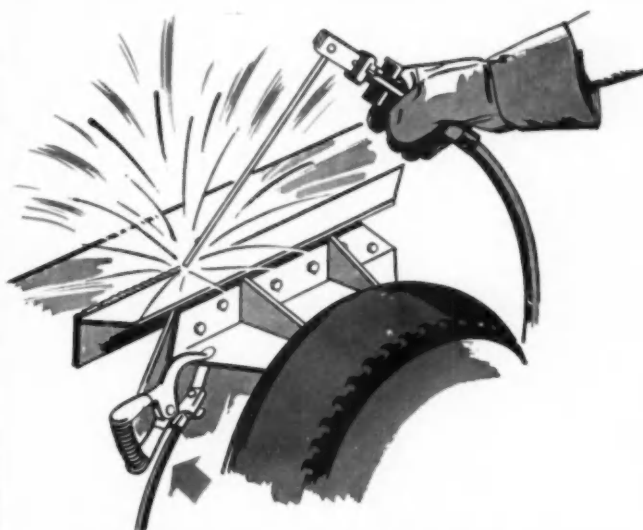
Disconnect the positive battery cable and insert a 15-volt voltmeter in series, with the voltmeter "plus" terminal con-

help prolong equipment life



Keep batteries charged to prevent frost-cracking

A cold snap can wreck a battery permanently if the charge is too low. In a fully charged battery (1.280 reading on the hydrometer), the acid solution is freeze-proof down to 90 below zero. But a battery only half charged (1.180 hydrometer reading) can freeze solid, and crack all the cells, at six below. A completely discharged battery — one left in storage for recharging, for example — can be damaged permanently by 22°F temperature. Moral: in winter, a charge in time can save you the cost of a new battery.



Weldings need electricity ... bearings don't

If you're electric-welding a truck chassis, be sure to attach a ground line between the weld and across any bearings. Otherwise, the current flowing through the bearings can cause pitting and flat spots.

nected to the battery "plus" post. A couple of wires soldered to the smallest wattage 12-volt bulb you've got will do the job, too.

Normally, with everything turned off, the voltmeter should read zero — or the bulb should be dark. On your problem truck, however, you should get either a reading or a lighted bulb — both indicating an "illegal" current flow.

Now, to find the leak, disconnect critical wires one at a time until you get a zero reading or a doused light. Circuits that don't show a voltmeter drop when disconnected can be reconnected and the search goes on. When you do get a voltmeter drop or a lighted bulb, you know you've found the guilty circuit. Check it until you find the trouble.

Since most wiring these days is contained in harnesses, make each disconnect either at the part you're investigating or at an intermediate connector sleeve, or at the convenient junction blocks on the firewall.

Where several junctions occur in the same circuit, start at the battery end when making the several successive dis-

connects necessary to isolate the trouble.

I once ran across a similar situation. We finally tracked it down to a misadjustment of the "Houdini Switch" in the glove compartment. As a result, that hidden light was burning all the time and running down the battery even when the glove compartment was closed.

SHORT CLUTCH LIFE

Dear Al:

We're having problems with the clutch in a 1-ton truck.

After new clutch and pressure plates are installed, the clutch works fine for about 10 days — then it starts to chatter. Shortly after, it starts to shear off the clutch's rear spring center bolts.

As far as I know, the truck is not overloaded.

Can you spot the trouble?

W. M. D., Dillonvale, Ohio

Under normal driving conditions, a clutch facing should last from 50,000 to 100,000 miles. Obviously, you're not

getting anywhere near this mileage. So, I suspect your trouble comes from either of these two causes:

Driving habits. Your area is pretty hilly. The driver of this truck might be gunning the truck much too fast up and down those hills in low gears. Nothing wrecks clutches, valve springs, and connecting rod bearings as fast as this kind of driving.

Clutch installation. Any kind of unbalance in the installation can cause vibration and high stresses. You have to be very careful about installation.

Check the installation closely to see that it's carefully assembled, precisely adjusted and correctly lubricated.

Align the clutch cover with the flywheel; carefully tighten all bolts. Doing both these things will do a lot toward preserving concentricity and avoiding distortions.

Lubricate the clutch pilot bearing with a high-melting-point grease like Marfak Heavy Duty 2 or 3 or Marfak Multi Purpose 2. Any other kind of grease may fly off onto the clutch facing and cause chattering and slippage.

LUBE LOGIC

Valve deposits —and what to do about them

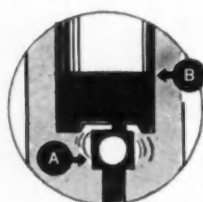
Here's a quick run-down on some common causes of valve deposits, and how you can cure them:

CAUSE	CURE
Intake valve deposits from:	
Gumming material in fuel	Use proper fuel
Improper carburetion	Service carburetor and fuel system to correct fuel ratio.
Worn guides allow excess oil on stem	Replace guides
Improper seating	Service valve, guide, seat, as needed.
Dirty or wrong oil	Replace with right oil, service lubricating system.
Exhaust valve deposits from:	
Improper combustion	Service fuel, ignition system, engine, as required.
Worn guides	Replace
Improper seating	Service valve, guide, seat, as needed.
Dirty or wrong oil	Replace, service lubricating system.

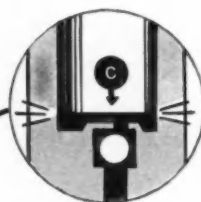
Hydraulic valve lifter noises give clues to ailments

Listen to your hydraulic valve lifters — if you think they're not perking properly. The kind of noise you hear often pinpoints the trouble.

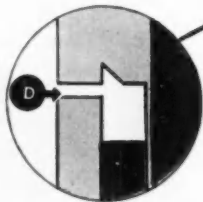
1. Very slight single or multiple noise from a unit. This kind of noise is due either to a leaky check valve (A), or to a plunger having too much clearance in the bore (B).



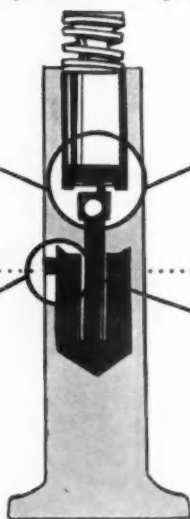
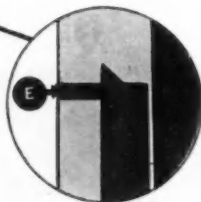
2. Single loud noise from a unit. This noise is generally due to a hydraulic plunger becoming sticky or tight in the bore to such an extent that the plunger spring will not move the plunger in the bore. This means the plunger is forced all the way down so that it bottoms (C).



3. General noise in the entire set. This kind of noise is a bona fide indication that air is being drawn into the units (D) because the oil level in your engine is too low. You'll start hearing this noise before any real damage is done, but you can't afford to neglect it.



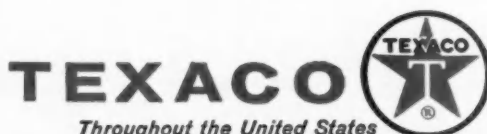
4. General or intermittent noise in the entire set. This kind of noise — here or anywhere else in the engine — can mean there's too much air in the oil (E). Check the inlet side of your oil pump for air leaks.



TEXACO AUTOMOTIVE ENGINEERS

Every month, we'll bring you the latest "doings" in servicing and lubricating your equipment. We'll also bring you "sleepers," little angles, easy to overlook, that can mean big savings in time and money for you. But remember, your Texaco Lubrication Engineer is still the best source for day-to-day money-saving lubrication ideas. He can show you why "Lubrication is a major factor in cost control." Texaco Inc., Fleet Sales Division, 135 East 42nd Street, New York 17, New York. Write Dept. CCJ-142.

Tune In: Huntley-Brinkley Report, Monday Through Friday—NBC-TV



Throughout the United States

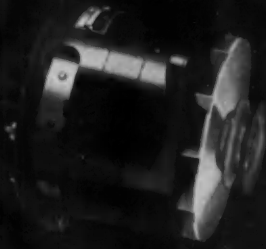
Canada • Latin America • West Africa



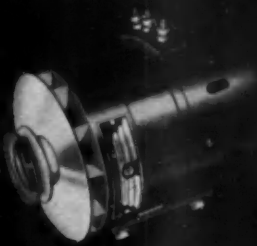
6000 SERIES
6 and 12 Volt—40 Amp.
Light-Medium Duty for
cars, trucks, marine



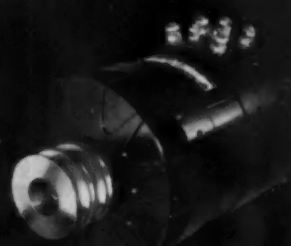
2074 SERIES
6, 12, 24, 32 Volt—60 Amp.
Medium-Heavy Duty for
cars, trucks, marine



2038 SERIES
6, 12, 24, 32 Volt—60 Amp.
for marine, other corrosion
factor applications



2000 SERIES
6, 12, 24, 32 Volt—100-125 Amp.
Heavy Duty—Extra H.D. for
cars, trucks, marine, railroads



2064 SERIES
12 Volt—150 Amp.
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buses, earthmovers, etc.

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The Leece-Neville Co., Dept. CC-12
1374 E. 51st St., Cleveland, Ohio

Please send information about L-N alternators for:
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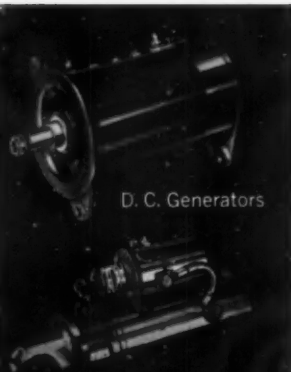
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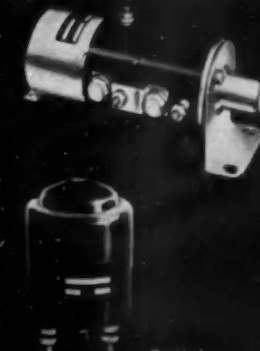


D. C. Generators

Cranking Motors



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(use with Alternators)

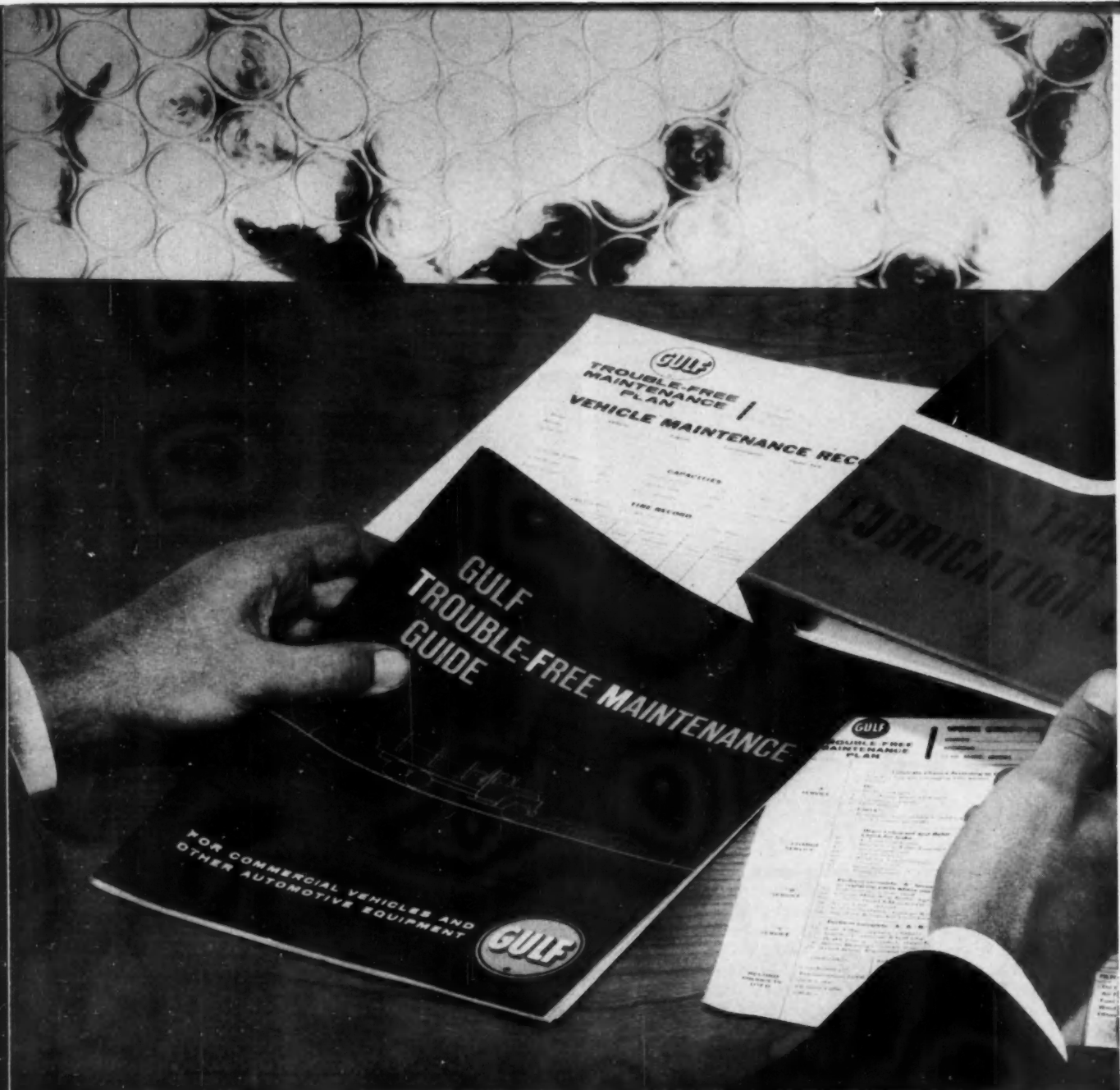


Switches
(Magnetic & Series Parallel)



Fractional D. C. Motors

Regulators



Gulf TFM Plan puts new cost-cutting

Do you have a system for keeping track of your maintenance costs? For making sure proper maintenance work is done on a systematic basis? Gulf's new Trouble-Free Maintenance Plan provides a simple and practical method of fleet preventive maintenance procedures which can help you make substantial savings in operating your fleet.

It's all explained in a new Maintenance Guide just off the press. The five major areas for developing a trouble-free maintenance program are discussed: the selection of proper fuels and lubricants; lubrication

frequency; how to set-up inspection procedures; how to plan your tune-up or adjustment frequency; and a simple, complete method of record keeping that will help you carry out preventive measures and spot trouble before expensive repairs and costly out-of-service time are involved.

This scientific, tested maintenance plan will help you pile up record mileage between overhauls. It is the result of Gulf's many years of experience in working with fleet owners. You'll share in maintenance knowledge that has already proved successful for



tools in your hands

many Gulf customers. You'll realize the benefits of using top quality petroleum products and programmed maintenance.

Take the first step toward lower operating costs now! Call your nearest Gulf Office, or mail the coupon for your free copy of the Gulf Trouble-Free Maintenance Guide.

More details? Circle 124 on reply card inside back cover

GULF OIL CORPORATION

Dept. DM, Gulf Building
Houston 2, Texas

Send me a copy of the new Gulf
Trouble-Free Maintenance Guide.

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GULF

GULF MAKES THINGS RUN BETTER!

BODY BY FISHER ROOMINESS

is another reason Chevrolet does
better by your fleet dollars

[*right up through trade-in time*]

★★★★★★★★★★★★★★★★



This new Chevrolet gives you the man-sized, down-to-business roominess you want in a fleet car. In fact, Chevrolet went to the extent of using lifelike models to make certain all its '62 models have space to spare, wherever it counts, for relaxing comfort. That goes for head room, leg room, foot room—the works. Those big wide-opening doors are another Body by Fisher advantage for busy fleet schedules. And what Chevrolet does for people, it does for luggage. Nobody else in Chevrolet's field gives you a trunk like

this one, with bumper-level loading plus a deep-well floor that lets you take aboard odd-shaped objects other cars just can't accommodate. Add to this all the traditional Body by Fisher advantages—its rugged durability, handsome hardy interiors, through and through insulation against road noise and weather—and you have some of the best reasons why Chevrolet keeps its value longer to bring top trade-in year after year. . . . Chevrolet Division of General Motors, Detroit 2, Mich.



Low-sill trunk design takes lift out of loading.
Extra-wide lid allows easy loading from the side.



Foam-cushioned front seat, front arm rests, dual sun visors, cigarette lighter and glove box lock are standard on all '62 Chevrolet models.

'62 CHEVROLET





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Whether you're cleaning carburetors, metal parts, floors or hands, you can get the job done faster and better with Bendix Service Cleaners. These quality products cut through all kinds of grease and grime quickly and effectively.

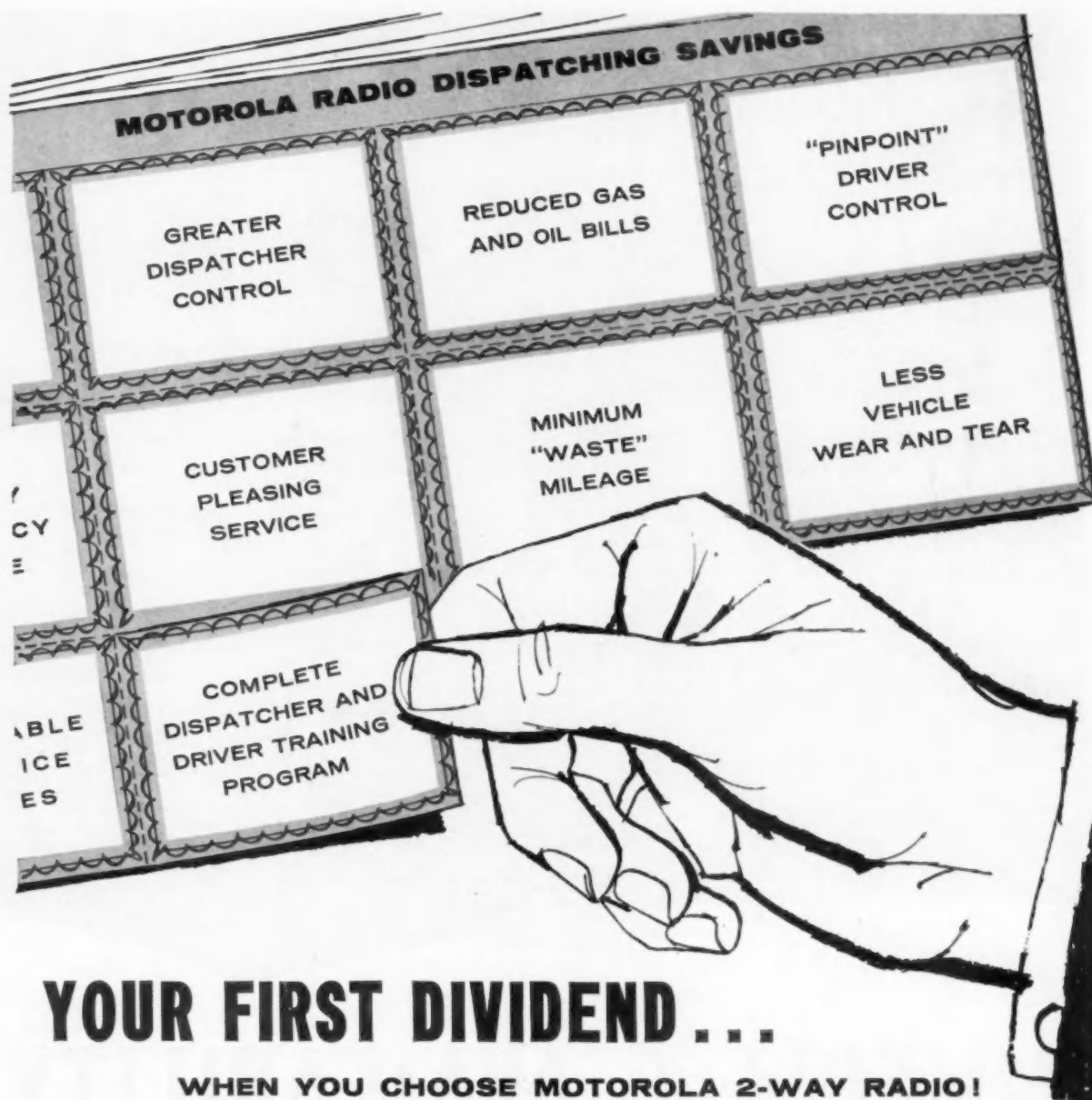
Each Bendix Service Cleaner is specially formu-

lated for its job. Each has been proved in fleet shops all over the country. Consistent quality assures uniform performance . . . cuts clean-up time to a minimum. Call your Bendix Distributor today, or write Bendix Automotive Service Division, South Bend 20, Indiana.

Bendix Automotive Service



1 SPEED-CLENE	2 METAL-CLENE	3 E-CON-O-CLENE®	4 DEEP-CLENE®
<p>The super-fast, premium parts cleaner. Safe, easy to use . . . needs no scrubbing or scraping.</p> 	<p>The cold-immersion cleaner for general cleaning of metal parts in its own container, tank or vat.</p> 	<p>The multi-purpose degreaser concentrate . . . can be brushed on, sprayed or used in a tank. For parts, equipment, floors.</p> 	<p>The penetrating hand cleaner . . . floats away ground-in grime and grease . . . conditions skin as it cleans. Convenient dispenser available.</p> 



When you put Motorola 2-way radio on the job—all the savings and service dividends start with your first radio call! Why? Because only Motorola completes a training program so thorough that even the smallest details of your record and data keeping are matched to your specific radio operation. Your drivers—most important, your dispatcher and customer handling staff—are given the benefits of Motorola's years of radio experience in trucking operations, large and small. And only Motorola offers

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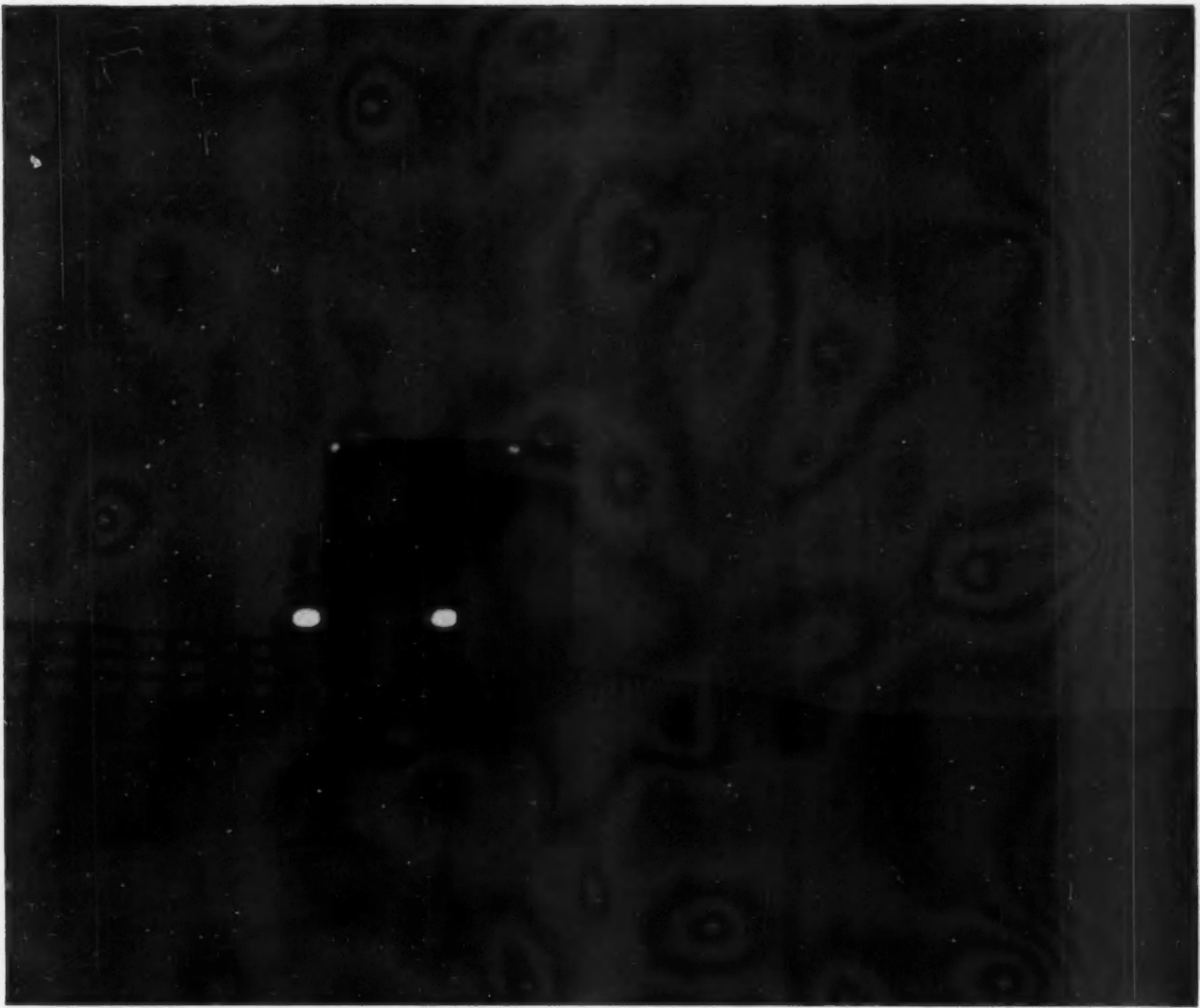
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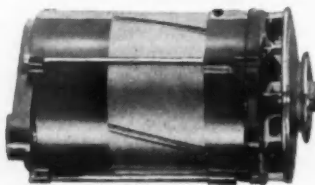
UNITED DELCO FLEET SERVICE CUTS COST PER MILE, KEEPS PERFORMANCE AT A PEAK—AND IT'S YOURS FOR THE ASKING!

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Yes, I would like to know more about United Delco Fleet Service.

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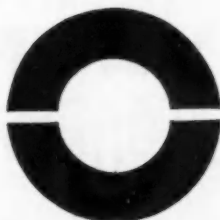
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Another reason why tires made with **NYLON** cost you less per mile **NYLON IS STRONGER WHEN WET**

You can't change the weather, but you can change to the tires that take it in their stride. Nylon keeps nearly 90% of its original strength when wet... a competitive tire cord retains only 60% of its strength. That's why nylon is impervious to the permanent moisture damage that affects other cord, thus gives more mileage, more retreadable carcasses. Remember that moisture can get to the tire carcass through tiny cracks and cuts in the rubber. ■ This is why nylon cord tires cost you less per mile, even though their original cost is slightly higher... and why more and more trucks are rolling on nylon tires. In fact, last year more than 55% of all replacement truck tires sold were made with nylon cord... real evidence of nylon's acceptance by truckers.

THE SAFEST, STRONGEST TIRES ARE MADE WITH

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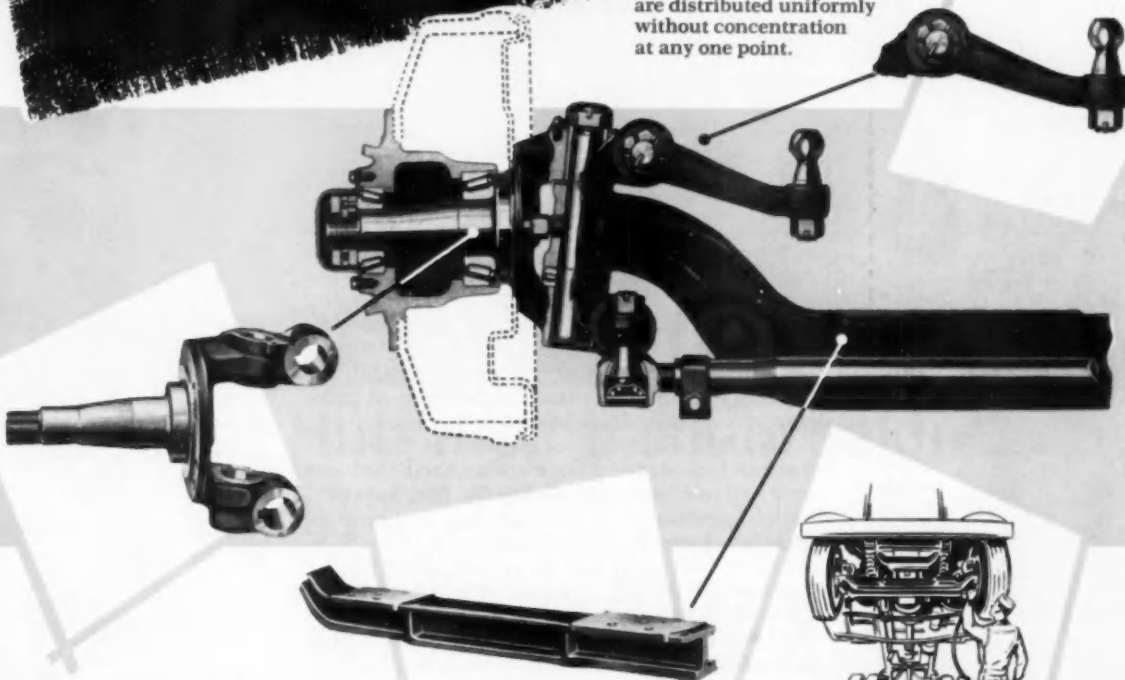
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They're built to take it — designed for greater front end stability, greater safety, greater maneuverability, longer vehicle life! Rockwell-Standard Front Axles give greater strength with no additional weight. They're the world's most complete line of front axles, with capacities ranging from 3,750 pounds to 40,000 pounds. For better up-front performance on any size truck or bus, specify Rockwell-Standard F-900 Series Front Axles. You get all these advantages of superior design:

Less stress on steering arms.
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Deflection is held to a minimum by large knuckle spindles and improved design of knuckle section between spindle and upper and lower bosses.

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Transmission and Axle Division, Detroit 32, Michigan

TO the Trucking Industry...

The news story below should be of interest to all truck and bus operators. The fact is, Anchor Lok diaphragm type spring brakes not only exceed the C.H.P. safety requirements but offer many superior advantages as the most economical parking brake for all operators.

ANCHOR LOK BRAKES APPROVED BY CALIFORNIA HIGHWAY PATROL

Overland Anchor Lok Inc. has been notified that its parking and emergency brakes are now approved by the California Highway Patrol to meet that state's pioneering brake safety law 26310.

The Highway Patrol's certificate of approval includes all Anchor Lok models 2424, 2430, 3024, and 3030, "piggy back" as well as safety brake.

News of this approval came only two weeks after initial announcement. At that time Anchor Lok's name had not appeared on the approval list. However, investigation showed that the original units sent by the company had not carried a regular production model return spring but that of a prototype. This assembly error had caused a balance of pressure not present in production models.

Mr. Don Rumsey, president of Overland Anchor Lok stated "We were amazed that our unit had not been included in the first approval notice because we had never had any trouble with hundreds of units already in service. Subsequently we notified all of our distributors and users publicly that we would guarantee their units and if necessary replace them at no charge. The assembly error, however, was immediately apparent and at the Patrol's invitation we re-submitted. All models were then reviewed and approved. The cooperation of the California Highway Patrol in expediting this has been outstanding."

Why not find out how and why Anchor Lok Parking and Emergency brakes can save you money, time, and trouble. There is no other brake exactly like it! We'll be glad to send you this descriptive brochure.

OVERLAND **ANCHORLOK** INC.

5756 Joanne Place, Culver City, California / UPTon 0-9841

EXbrook 7-8279



JENNY® MULTI-JOB WASHER CUTS TRUCK CLEANING TIME IN HALF



And saves Hub men back-breaking work

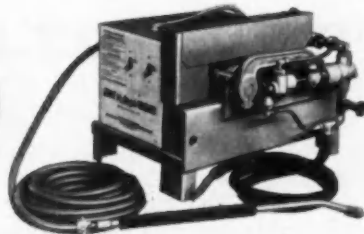
"Now," says Vice President W. F. Huberlie, Hub Oil Company, "we can wash a truck just about twice as fast as it formerly took us by hand, thanks to our Multi-Job Washer."

Cleaning off the grease and grime that accumulate on fuel oil and burner service trucks is the task assigned the Jenny Multi-Job Washer by the Rochester, N. Y. firm.

In operation every week for six months, the Multi-Job Washer has never cost a cent for maintenance.

The Washer itself is installed in a corner of the company's garage. Its fast cleaning nozzle is attached to a 50-foot hose to reach easily the top, sides, front and back of grease-and-grime-caked trucks.

ONLY
\$349



The Multi-Job Washer costs only \$349! Find out how you can clean fast and economically *without fire, fog, or fumes*. MAIL COUPON

☐ Send me full information on the Jenny Multi-Job Washer.

☐ Arrange for a free demonstration.

Name.....Position.....

Company.....

Address.....

City.....Zone.....State.....

15

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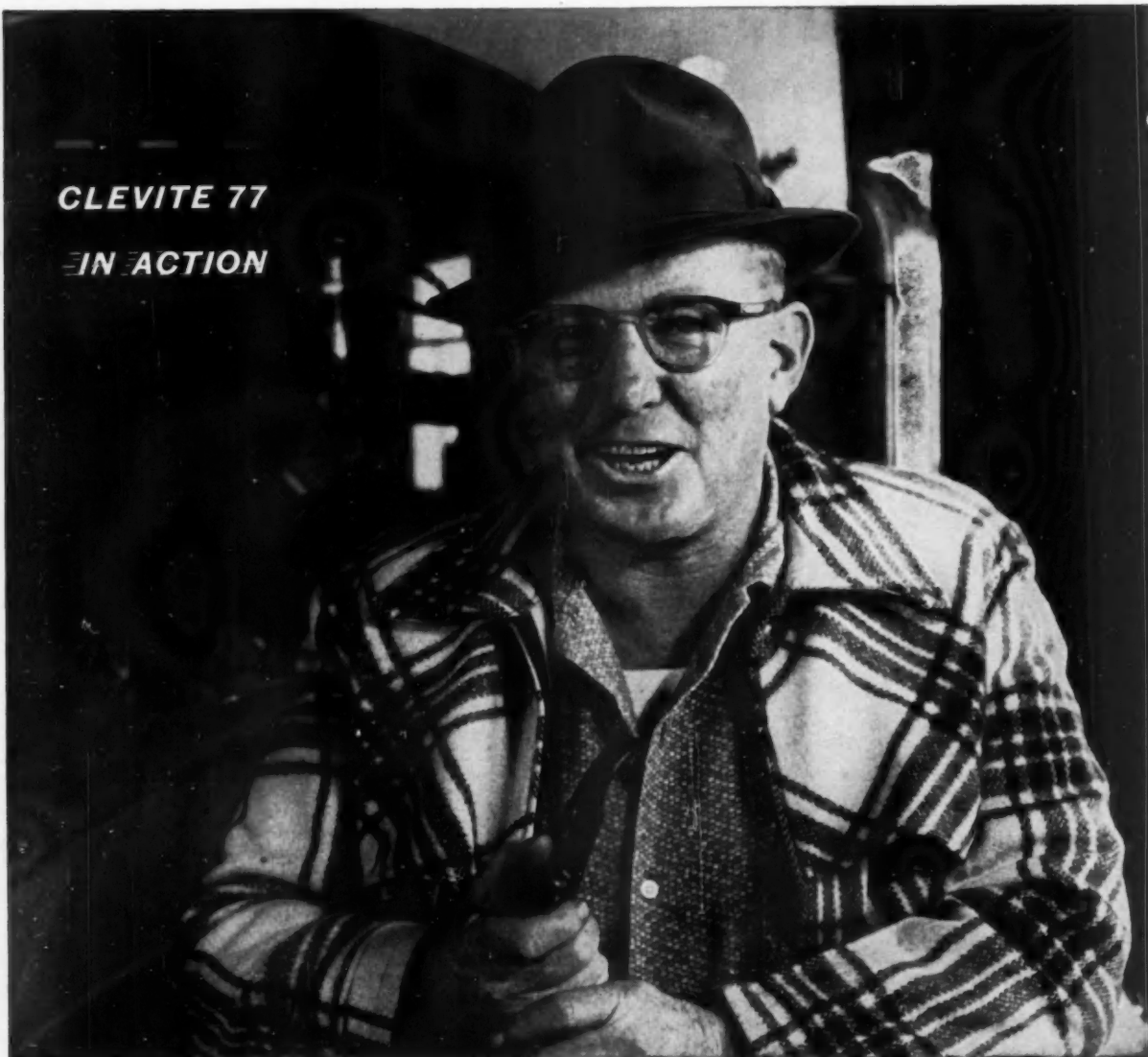
HOMESTEAD VALVE MANUFACTURING COMPANY

Hypressure Jenny Division—Coraopolis, Pa.

In Canada: Hypressure Jenny Sales & Service, Ltd.,
517 Jarvis St., Toronto 5, Ontario. (C.S.A. Approved)

CLEVITE 77

IN ACTION

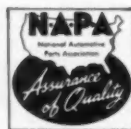


"Clevite 77 Bearings just won't quit . . .

. . . even after 300,000 miles. When I rebuild an engine, I could often put the same bearings right back in. And I'm talking about heavy-duty equipment that runs up to 18,000 miles a month. With 445 rigs we need the rugged quality of Clevite 77 to help keep our equipment in top running condition."

says Art Miekel, Shop Foreman
Texas-Arizona Motor Freight, Inc.
El Paso, Texas

Most shop foremen, like Art Miekel, know that Clevite 77 Bearings have the built-in quality to perform at a profit. Their patented tri-metal construction gives longer, trouble-free performance. For your next engine overhaul, get Clevite 77 from your NAPA jobber—he can give you complete service.



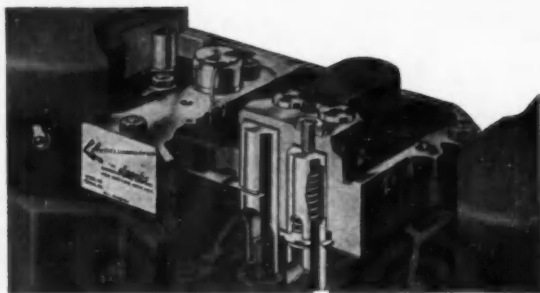
MONMOUTH Engine Bearings

CLEVITE SERVICE: Cleveland Graphite Bronze • Division of Clevite Corporation • Cleveland 3, Ohio





**NOW ... faster trips ... bigger payloads ... greater savings
with complete braking safety!**



The Jacobs Engine Brake can be installed with vehicle down time of 4 hours or less.

SAFETY PLUS SAVINGS!

- Increased brake lining and drum life—well over double the life in many cases.
- Longer tire life.
- Less fuel consumption—increased oil life.
- Less engine maintenance.
- Easier engine run-in.
- **HIGHER DOWNHILL SPEED WITH COMPLETE SAFETY—FASTER SCHEDULES—EXTRA HOURS OF OPERATING TIME!**

Write for new catalog. See why the easy-to-install Jacobs Engine Brake is already drawing the attention of fleet operators and vehicle manufacturers throughout the industry.

NEW JACOBS DIESEL ENGINE BRAKE

*...one of the great over-the-road
economy advancements*

The Jacobs Engine Brake gives any diesel transport complete and separate braking *independent of existing brakes*. It converts the engine into an air pump which makes use of every ounce of braking power that a diesel engine can produce, with no heat dissipation problems. In short, the Jacobs Engine Brake converts the diesel into a 100% workhorse that can pull its load uphill *and hold it back going downhill!*

Your driver can easily employ the Jacobs Engine Brake without changing his driving habits. Simple controls are located right in the vehicle cab. Best of all, the brake can be installed on standard diesels, 2-cycle engines, and supercharged or turbo-charged engines. At trade-in time, you can shift the brake easily from one truck to another. Or you can put it on leased vehicles.



CLESSIE L. CUMMINS DIVISION
DIESEL ENGINEERS diesel products

THE Jacobs MANUFACTURING COMPANY
WEST HARTFORD 10, CONNECTICUT



Auto Rental's Truck Fleet gets



"The truck rental business is tough on trucks. We use AC Spark Plugs and Oil Filters exclusively, because they give us longest truck life at lowest maintenance cost."

GEORGE GATNAREK
Shop Foreman
Auto Rental Company
Pittsburgh, Pa.

Combine the rugged hills of Pittsburgh with truck operation that is mostly heavy traffic stop-and-go, and you put together forces that quickly test the reliability of truck components and parts.

Pittsburgh's Auto Rental Company—one of the country's first truck rental firms—knows that keeping its trucks in top condition is a "must" for keeping customers. It has found that quality maintenance is the best and least expensive kind of maintenance.

Spark plugs and oil filters are important items of quality



maintenance saving
1 ACtion with

maintenance. Auto Rental Company has used AC Spark Plugs in all equipment since 1925 and AC Oil Filters ever since oil filters were introduced because "AC quality lets ACs work full time between maintenance checks and saves us unscheduled maintenance expense."

You can get this same money-saving performance for your fleet. Call your AC Supplier and ask about AC ACTION. Remember, you get AC quality only under the AC name.

AC SPARK PLUG  THE ELECTRONICS DIVISION OF GENERAL MOTORS



**FIRE-RING
 SPARK PLUGS**

**TRIPLE-TRAPPER
 OIL FILTERS**



LIMITED SLIP DIFFERENTIAL MAKES 'Jeep' FLEETVAN EVEN MORE MOBILE AND EFFICIENT!

The new 'Jeep' FLEETVAN... the ideal vehicle for multi-stop pickup and delivery use. The FLEETVAN maneuvers easily in heavy traffic and parks in less space than most cars. Top gas economy too with the famous 4-cylinder 'Jeep' Hurricane engine. And many FLEETVANS are being ordered today with limited slip differentials, which add to their mobility by automatically routing the power to the rear wheel with the greater traction. 'Jeep' vehicles are manufactured only by Willys Motors, Inc., Toledo 1, Ohio.



Any commercial car or wagon becomes more mobile, more efficient when equipped with a limited slip differential, the amazing device which protects against getting stuck. The cost is slight and the benefits are many, as users everywhere report.

Here's how it works—when one drive wheel is on ice, wet leaves, mud or any other non-traction surface, the limited slip differential routes the power to the opposite wheel, the wheel with traction, and your vehicle's on the move.

Regardless of your kind of business, you want deliveries, service calls, customer contacts made on schedule. Specify limited slip differentials for your cars and light trucks. Cut down on lost motion!



This is the U.S. Post Office version of the versatile new 'Jeep' FLEETVAN. It's a husky, walk-in delivery van made even more sure-footed with limited slip differential as standard equipment on this model. Take a tip from what the Post Office orders and have your next vehicle equipped with a limited slip differential.



DANA
CORPORATION

Spicer products available in Canada through
Hayes Steel Products Ltd., Merriton, Ontario

Toledo 1, Ohio

DIESELS:

Shell reveals how a special additive in Shell Dieseline can help you cut downtime and maintenance costs

Shell Dieseline® contains a remarkable additive called FOA-5X®. This additive was developed by Shell Research specially to help keep fuel line filters clean, and prevent injector corrosion.

Read how Dieseline with FOA-5X can help you cut downtime and maintenance costs—and get top engine performance.

SHELL Dieseline contains a special additive called FOA-5X®. Here are three important moneysaving jobs FOA-5X does for your diesel fuel systems.

1. FOA-5X helps keep Shell Dieseline clean and free of sediment, even during prolonged storage.
2. FOA-5X can help reduce diesel engine downtime by helping fuel filters and injectors to remain unclogged and clear. It inhibits sediment formation and helps keep tiny contaminants finely divided so they flow freely through screens and nozzles.
3. FOA-5X helps prevent corrosion and rust.

Maximum economy

The uniformity of Shell Dieseline enables injector nozzles to work efficiently. And it lets your mechanics tune an engine's fuel injection system for maximum economy.

The viscosity of all Dieseline is controlled to help provide proper lubrication of pumps and injectors.

Minimum knock, fast starting

The ignition quality, measured by cetane number, is tailored to your engine



Shell Dieseline is available in grades to meet all engine requirements. Ask your Shell representative to specify the correct grade for your equipment.

requirements. Results: controlled combustion, minimum diesel knock and good starting characteristics.

Shell Dieseline can help produce maximum engine power. And can make a significant difference in your diesel equipment. That difference is *top engine performance*.

Grades for all engines

Shell Dieseline is available coast to coast in grades to meet all engine requirements.

How to learn more about Dieseline

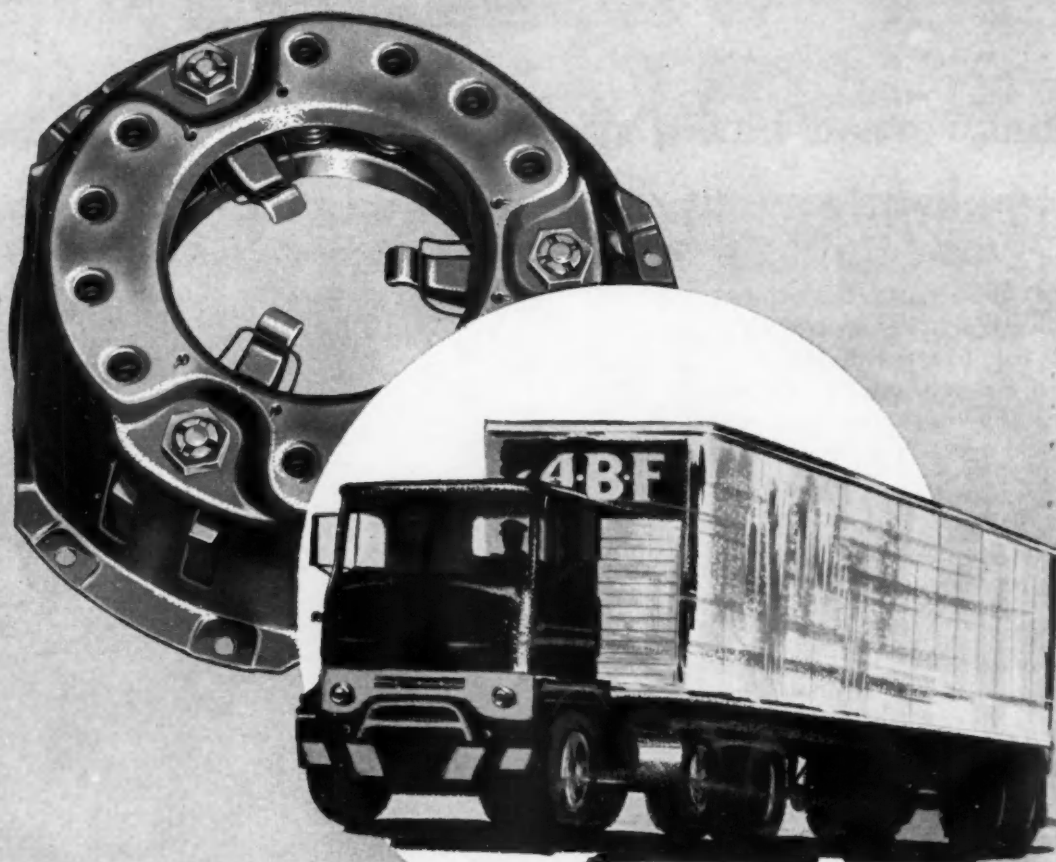
For additional information on Shell Dieseline, contact your Shell Industrial Products Representative. Or write:

Shell Oil Company, 50 West 50th Street, New York 20, N. Y.



*A Bulletin from Shell
—where 1997 scientists are working to
provide better products for industry*

In the Lipe Spotlight...



Arkansas-Best Freight System, Inc.
Fort Smith, Arkansas

"LIFE CLUTCHES

cost only $1/20$ ¢ per mile over 3-year period! "

"With a fleet of 627 power-units to keep rolling, we are very cost-conscious at A-B-F," says vice-president Harry B. Fink, director of maintenance for Arkansas-Best Freight System and Healzer Cartage Company.

"Our records show that over the last three years the cost per mile per clutch on 170 Lipe-equipped tractors was only one-twentieth of a cent.

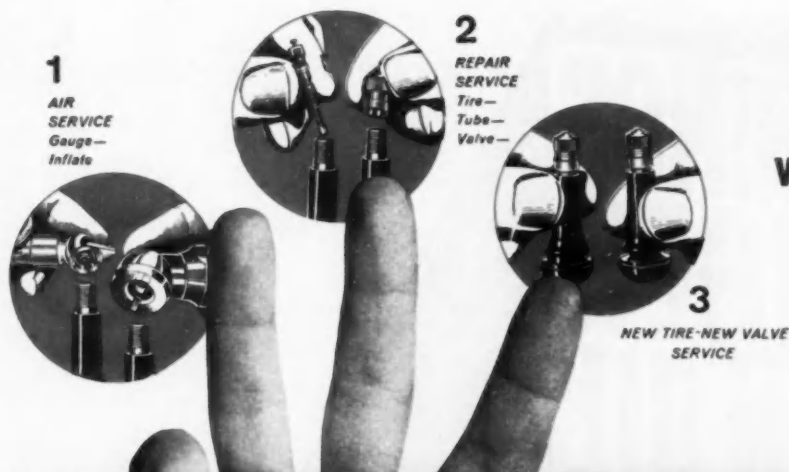
"Lipe is by far the best clutch for our road tractors because of trouble-free, high-mileage performance." Mr. Fink adds, "Most clutches in these units run in excess of 300,000 miles."



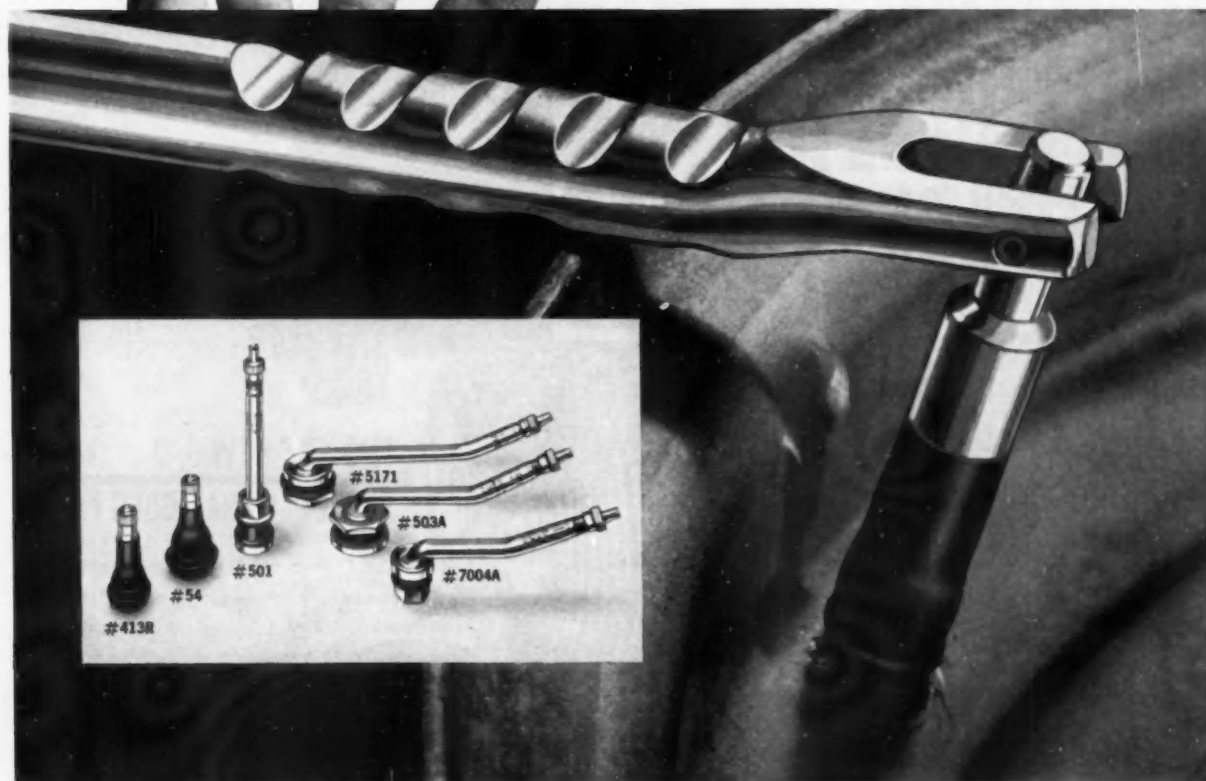
From coast to coast, fleet operators who keep costs in line and trucks on the road know

LIFE DELIVERS IN THE CLUTCH

© LIPE — ROLLWAY CORPORATION, SYRACUSE, NEW YORK



Valve as new as the tire... vital to any fleet's **TIRE-LIFE EXTENSION*** plan



The cost of a flat on the road is far out of proportion to the cost of a new valve. No fleet can afford it.

Tire valves... even Schrader valves with their superior quality... must age. A Schrader tubeless valve will outlast the finest tire, but not two or three, or the life of the rim. Eventually rubber loses elasticity, from heat, ozone, age, etc., reducing sealing effectiveness at the rim hole. Even though a water test shows the original valve does not leak, it may before the replacement

tire gives full mileage.

The rule is simple: Install a fresh Schrader Snap-in valve whenever you install a new passenger size tubeless tire. Or a fresh rubber grommet in the case of tubeless truck valves with metal stems. Follow this **TIRE-LIFE EXTENSION** rule to reduce tire operating costs. Order the products you need to perform all three **TIRE-LIFE EXTENSION** practices from the new Schrader catalog. Send for it!

*What is the TIRE-LIFE EXTENSION plan? Simply applying the three profitable practices shown above. By using this plan as a steady policy fleets benefit three ways: 1. Fewer flats on the road. 2. Full mileage and performance from all tires. 3. Lower operating, maintenance and tire costs.

Schrader
a division of **SCOVILL**

A. SCHRADER'S SON • BROOKLYN, 38, N. Y.
Division of Scovill Manufacturing Company, Inc.

FIRST NAME IN TIRE VALVES
FOR ORIGINAL EQUIPMENT AND REPLACEMENT

Made in America to American standards of quality by American craftsmen



WHEEL BEARINGS LAST LONGER RUNNING IN OIL AND WHEEL REPACK COSTS ARE SLASHED

IT'S THE NEW C/R SCOTSEAL THAT DOES IT!

The C/R SCOTSEAL is the trailer axle seal—fast becoming standard equipment with truck and trailer manufacturers—that gives you oil lubrication of wheel bearings for these economies—

1. No more grease repacks, clear plastic hub simplifies oil level check. 2. No burned-out bearings due to delayed repacking. 3. Less drag, lost power and fuel waste because SAE-30 oil remains free-flowing summer and winter, and 4. More complete protection for brake blocks against grease leakage. Try C/R SCOTSEAL and see the savings. Some fleet operators report that it costs up to \$50 (grease and labor) to repack 2 axles. With SCOTSEAL no repacks are necessary.

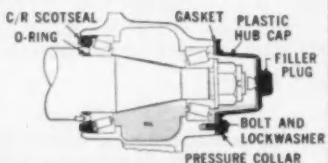
WRITE FOR SCOTSEAL BULLETIN! This brochure gives you all details on SCOTSEAL. Write C/R today or ask your C/R supplier.

SEAL OF PROVED PERFORMANCE



HERE'S HOW SCOTSEAL WORKS

All elements shown in solid green are included in the SCOTSEAL Kit. Unit illustrated: Fruehauf No. 5 axle.



ORDERING NEW TRUCKS, TRAILERS?

Then ask your truck and trailer supplier to put C/R SCOTSEALS on the axles at the factory. Start saving immediately... get full SCOTSEAL benefits from the first mile. Remember—order your new trucks and trailers equipped with C/R SCOTSEAL.



CHICAGO RAWHIDE MANUFACTURING COMPANY
SERVICE SALES DIVISION • CHICAGO 22, ILLINOIS

In Canada: Chicago Rawhide Products Canada Limited, Brantford, Ontario • Export: Geon International Corp., Great Neck, New York

"The pressure to cut my overhead never lets up. I need a car that costs less to start with ... and stay with!"

"Our cars must say 'successful outfit' because our customers insist on dealing with the leader in our field. So I insist on impressive fleet vehicles."

"My job calls for carrying samples so I need a full-size interior and big trunk. But the car should be small enough to park easily."

"I need enough size and weight and V-8 power to stand up to off-the-road work in rough country."

Just right... for just about every fleet!

New 1962 Fairlane 500... right size... right price... right between the Galaxie and the Falcon!

From the body design on through, Fairlane 500 is ALL new! The most desirable fleet characteristics were important in its planning. Result: No other new car has ever promised such extensive fleet applications.

1. Provides big car room, luxury and performance at compact prices.
2. Gas economy many compacts will envy.
3. The only fleet car at compact prices with all the proven service-saving features: 30,000 miles between major lubrications ... 6,000 miles between oil changes ... 30,000 miles or two-year engine coolant-antifreeze. Five billion Galaxie miles proved the cost-cutting value of such features last year. Fairlane's got 'em this year! In size, weight, price and performance, here's a new *kind* of fleet car deserving of your most careful consideration. See your Ford Dealer!

Send for a free copy of the *FLEET BUYER'S GUIDE*... facts on all Ford's fine fleet cars—Fleet Sales Mgr., Box 503, Ford Motor Company, Detroit 32, Michigan.

A PRODUCT OF  MOTOR COMPANY

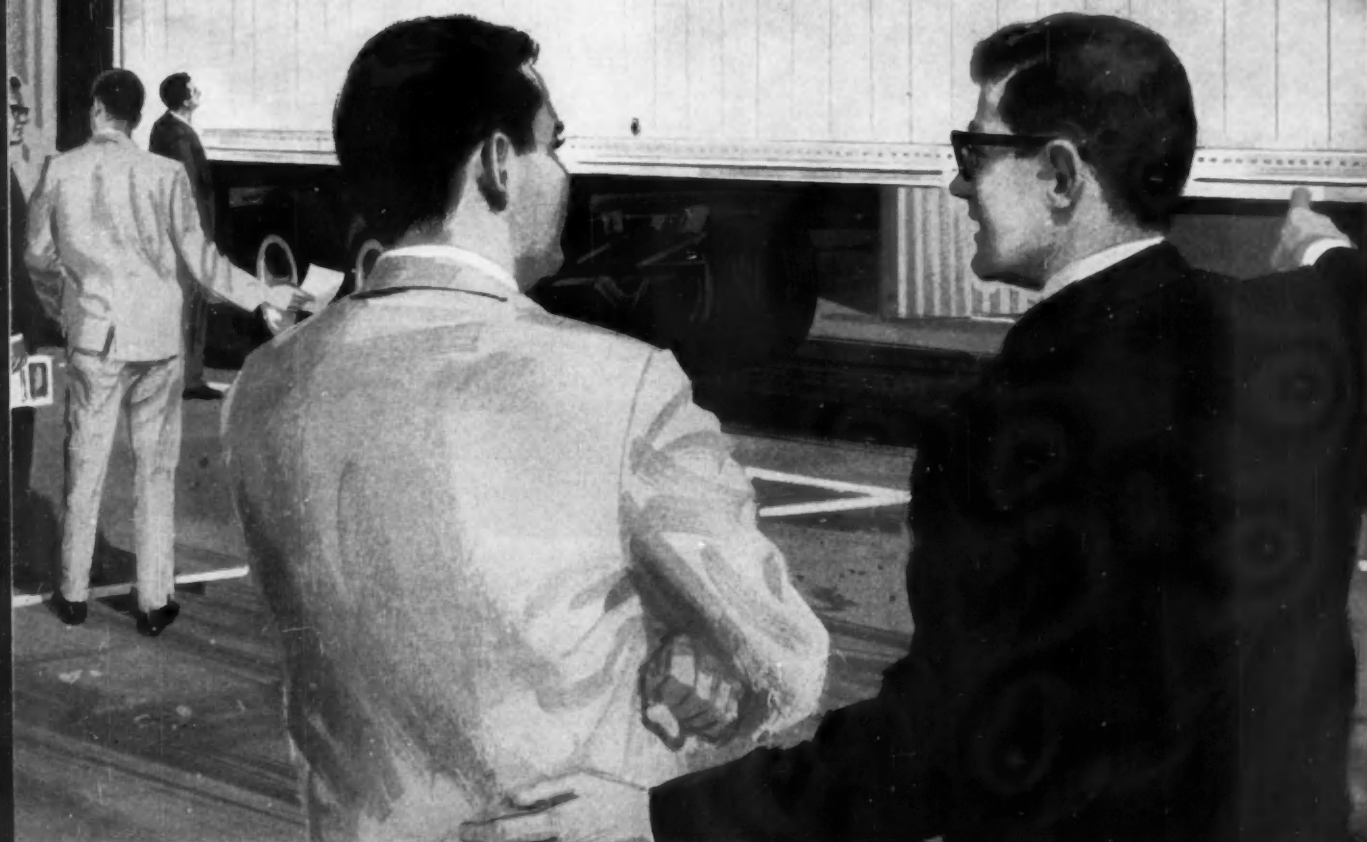


'62 FORD

FAIRLANE 500

Why all the commotion over

17



HOW MANY

Series/70 MODEL P VANS?

P



Here's Why:

rugged!

P-Series give you all the profit advantages of high strength steel in two rugged, big capacity vans. Both units feature Trailmobile's famous Integral Post construction which adds strength without the dead weight of separate posts. The unitized underframe offers a new 4" upper fifth wheel structure that is four times stronger than ever before. A new, forged kingpin and mounting offering 150,000 lbs. horizontal impact strength provides plenty of muscle for tandem-tractor and piggy-back operation. New deep, steel bolsters on 12" centers have 75,000 lbs. tensile strength. Quarter panel, side panels and bottom rail combine to provide unusual rigidity.

roomy!

Model P Vans feature a full 96" inside loading height—93" inside width—and a new 92½" rear door opening that facilitates loading and packing of large pieces of freight. Plenty of room for big, profitable payloads!

reliable!

A full width pick-up plate eliminates possible damage when coupling at sharp angles. New "flash" coated panels provide high corrosion resistance and cut maintenance. A new landing gear provides unusually easy operation. The rugged Trailmobile tandem offers years of trouble-free performance.

Model P-78

A smooth side unit with integral post side panels reversed



Model P-74
An exterior post unit

TRAILMOBILE INC.

Cincinnati 9, O. • Springfield, Mo. • Longview, Tex. • Fremont, Calif.

More details? Circle 143 on reply card

HOW MOBIL CUT COSTS \$13,883 FOR P. WAJER & SONS!

Total savings of \$13,883 in maintenance for 1960 were directly achieved by the Mobil Program for Fleets at 50 year old P. Wajer & Sons Express Company of Webster, Massachusetts. In addition to these savings, Vice President Roman Wajer attributes some \$26,000 related cost reductions to Mobil. These latter savings are substantiated by I.C.C. accounting records which show a decrease in maintenance costs from 20% of gross revenue in 1957 to 6.8% in 1960. Wajer's costs are now 2.4 percentage points below the New England average and 3.4 percentage points below the national average.

Apart from this, the Mobil Program has enabled Wajer to avoid operating problems it had planned to overcome in more expensive ways. Because of winter starting problems, Wajer had planned to incur \$6,000 a year rent for heated vehicle storage and extra shop space, plus added expenses for electric water jacket heaters and a booster battery and cart.

Mobil's recommendation of multi-grade Delvac Special motor oil made this unnecessary. No starting failures occurred in 1960, even at -30°F.

Other important benefits: Mr. Wajer attributes a 2% increase in gross revenue and a 1% decrease in transportation cost to greater vehicle availability due to fewer vehicle road breakdowns and less time spent in the shop.

Wajer operates as a Class II Common Carrier with 29 tractors, 40 trailers and 17 single units in Massachusetts, Rhode Island, and Connecticut, having 6 terminals.



\$7,200 saved

in the cost of outside engine work. Major overhauls were reduced from 6 to 1 a year. At \$800 each, this saved \$4,000. Elimination of 12 main and connecting rod bearing replacements at \$110 each saved \$1,320. Elimination of 19 valve jobs yearly saved \$1,880.



\$6,000 saved

on maintenance labor. Wajer was able to reduce its maintenance force from 4 to 3, releasing the extra man to become the driver of a new vehicle. Even with the reduced maintenance force, work formerly sent out, such as welding and body work, can now be done in the shop.

\$683 saved

in direct oil costs. Mobil laboratory analysis of used engine oils established an optimum oil change period that saved \$683. Inventory control was simplified by fewer oil brands.



...and here's how Mobil can serve you

Why is it possible that Mobil Sales Representatives and Fleet Automotive Engineers can produce big savings even for fleet owners who are doing a better than average maintenance job on their equipment?

The Mobil Program for Fleets is the answer. It works in the 5 areas of fleet operations affected by petroleum products and services to reduce costs and increase revenue: 1. Preventive maintenance. 2. Purchasing, storing and dispensing of petroleum products. 3. Correct application. 4. Analysis of equipment, methods and results. 5. Employee effectiveness.

Let the Mobil Program for Fleets show savings for you. Contact your Mobil Representative, or write to Mobil Oil Company, 150 East 42nd Street, New York 17, N. Y.



PROGRAM FOR FLEETS

More details? Circle 144 on reply card inside back cover



Pioneering?

You don't have to do it.

Detroit Diesel has done it for you.

Even the newest Series 53 and 71 Diesel models have been pioneered and proven to the tune of 90,000,000 horsepower—all developed from *one* basic design.

It all goes back to the big idea that makes the big difference in Diesels: Detroit Diesel's *family of engines concept*.

One design throughout the line that gives you the most advanced new models with basic components proven by years of use.

One design that delivers the *ultimate*

in standardization savings on parts and service, whether you use 1 engine or 100.

One design so unique, all the advances made in the future can be applied to engines in the trucks you buy today.

One proven design throughout the line builds greater value into every engine. That's why so many leading builders offer Series 53 and 71 Diesels in their trucks.

Detroit Diesel Engine Division, General Motors, Detroit 28, Michigan. (In Canada: General Motors Diesel Limited, London, Ontario.)

SERIES 53 & 71 DIESEL TRUCK ENGINES

Available in Chevrolet • Diamond T • Freightliner • FWD • GMC • Hendrickson • International • Kenworth • Peterbilt • Studebaker



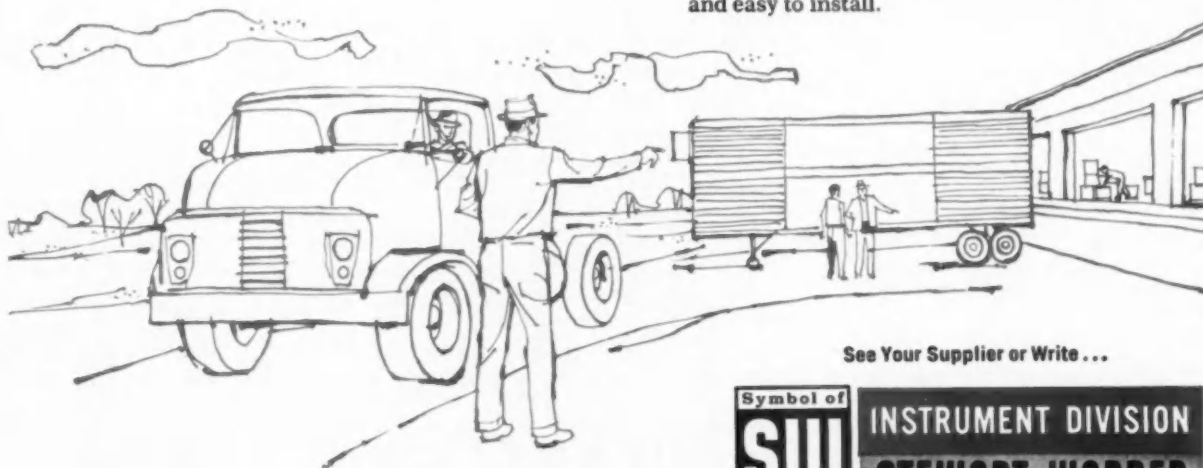
Tops in precision...

STEWART-WARNER ELECTRIC TACHOMETERS

A "tuned" circuit in the transmitter of each Stewart-Warner "100" Series Electric Tachometer assures accuracy of engine speed indication throughout the entire dial scale. As a result, each reliable, sensitive Stewart-Warner "100" Series Electric Tachometer gives precise engine speed readings even at high speeds. It indicates to drivers the most economical, efficient range for engine operation. Tells them when to shift so they can save fuel and engine wear for greater economy, helps eliminate "racing" and "lugging."

Take advantage of increased mileage, fewer maintenance problems, more fuel savings with Stewart-Warner "100" Series Electric Tachometers. There's a model for every engine with distributor ignition and they're easy to mount in the panel or on top of the dash.

Stewart-Warner's "760" Series Tachometers are available in mechanical and electric models for diesel or other type engines. Each precision-made instrument is dependable, accurate, easy to read and easy to install.



See Your Supplier or Write ...



INSTRUMENT DIVISION
STEWART-WARNER
CORPORATION

Dept. U-121, 1840 Diversey Parkway, Chicago 14, Ill.



Tully and DiNapoli report . . .

Bearing replacement costs only .0000548% of total maintenance

TULLY and DINAPOLI, INC., Flushing, N.Y., operate 146 vehicles in their general contracting business, including trucks, bulldozers and cranes. They roll up about 3,000,000 miles per year. At times, some units carry a gross load of 80,000 lbs. And Tully and DiNapoli records show their Timken® bearing replacement cost per vehicle runs only .0000548% of total maintenance.

Mr. D. C. Adamson, Fleet Superintendent, says: "Timken bearings

have proven themselves by years of trouble-free operation. And that's why we've been Timken bearing users for 35 years."

Just as thousands of fleet owners do, Tully and DiNapoli buy Timken bearings on price. *Not initial price—but price per mile.* They know it isn't what you pay for bearings that counts, *it's the performance you get.*

Timken bearings do their job so well because we carefully guard their quality from start to finish. Even the steel that goes into the

bearings is carefully selected. We've been producing the finest alloy steel for many years so we know good bearing steel—and use it.

For your replacement bearing needs, do what most truck manufacturers do. Specify Timken tapered roller bearings. And to get the most from your Timken bearings, send for free booklet, "Fleet Owner Service Manual". The Timken Roller Bearing Company, Canton 6, Ohio. Canadian Division: Canadian Timken, St. Thomas Ontario.

**Lowest price per mile . . .
mile after mile after mile**

TIMKEN®
tapered roller bearings





MORE GMC
BUILT-IN BONUSES:

**MOST
POWER
OF ANY 90"
GAS-POWERED
TRUCKS**

**BIGGEST
PAYLOADS
OF ALL GMCs**

PULL

GMC

GENERAL MOTORS
CORPORATION

TRUCKS

FROM 1/2 TO 60 TONS



GMC TWIN-SIX HIGHEST PERFORMANCE OF ALL



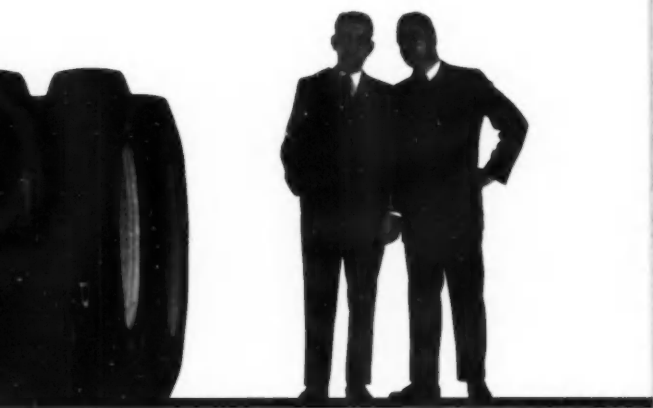
This GMC Twin-Six out-powers all others, in every way. Look at the broadest span of the most load moving power... torque, and the low engine speeds. This means you get your loads moving easier, faster and keep them moving to meet your tightest time schedules. Engine wear is less. Fuel mileage is tops. Gear shifting is reduced up to 60%. And of prime importance, you get unsurpassed engine life.

FOR ALL THE TIME AND MONEY-SAVING DATA, CONTACT YOUR G

Eng
GM
W
X
Y
Z

GMC BW7000

No other fleet trucks offer you all this—most “go” under the hood, the exclusive Twin-Six; 90” BBC and 28” front axle placement for all the weight and volume you can legally haul, up to 120,000 lbs. GCW; swing-away grille sections to cut service time and expense; cabs are built extra strong outside and extra big inside. Chassis—everything you could want and need. Just ask your GMC Truck Dealer. He’ll prove it all to you, gladly.



L STANDARD GAS ENGINES!

SEE FOR YOURSELF

Engine	Max. Torque (lbs.-ft.)	Max. Horsepower
GMC	625-630 @ 14-2100 rpm	275 @ 2400 rpm
W	481 @ 16-1800 rpm	266 @ 3200 rpm
X	505 @ 2000 rpm	256.8 @ 3400 rpm
Y	617 @ 1200 rpm	232 @ 2100 rpm
Z	440 @ 1200 rpm	215 @ 2900 rpm

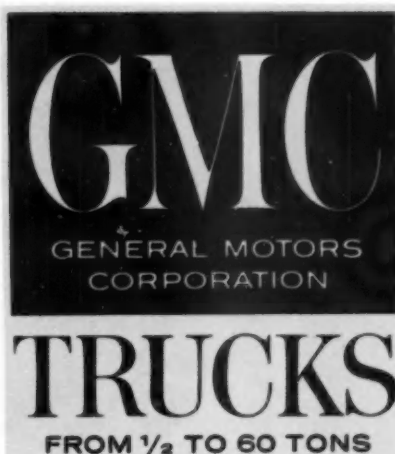
OUR GMC TRUCK DEALER SHOWN IN THE YELLOW PAGES.

MORE GMC
BUILT-IN BONUSES:

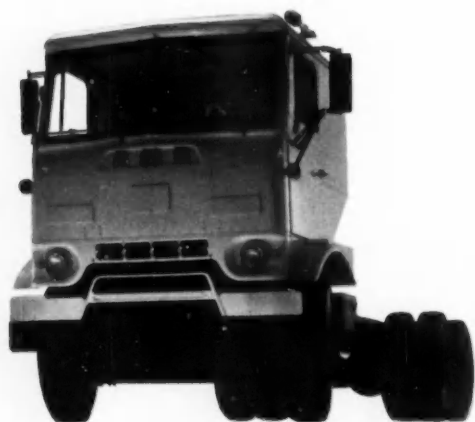
**MOST
POWER
OF ANY 90”
GAS-POWERED
TRUCKS**

**BIGGEST
PAYLOADS
OF ALL GMCs**

PULL

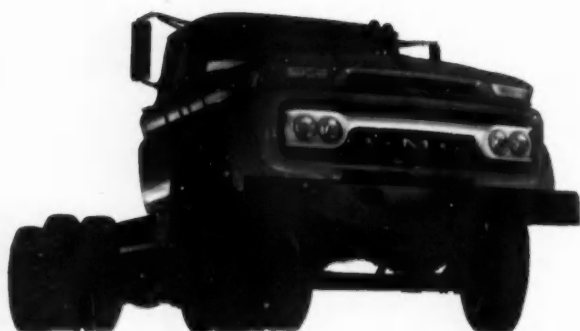


YOU GET BUILT-IN BONUSES IN EVERY GMC TRUCK



HAUL UP TO 1-TON EXTRA PAYLOAD!

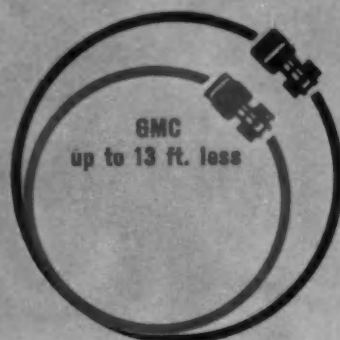
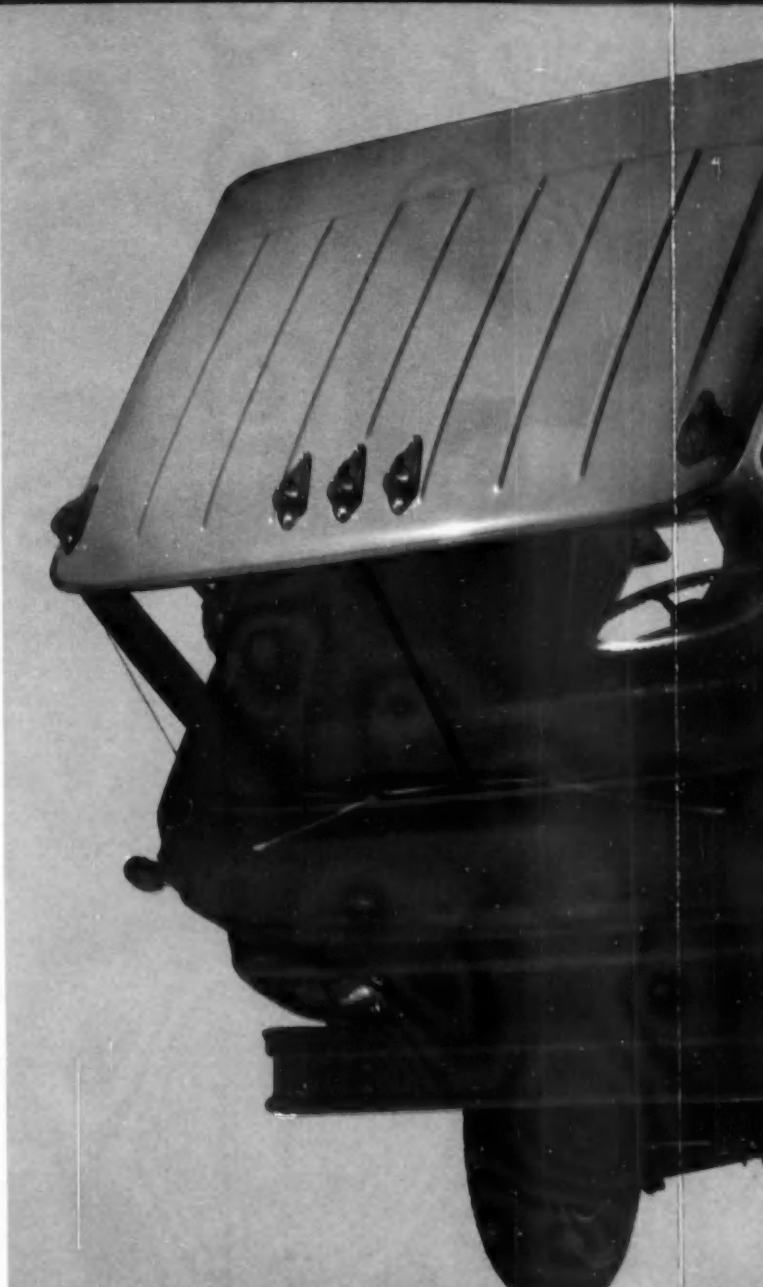
Actual scale weight comparisons prove this GMC DFW7000 will haul up to 2,313 pounds more payload than other diesels in its class. It should because it's the shortest, lightest 48" aluminum tilt-cab built.



EXCLUSIVE V-6 POWER . . . PROVED DURABILITY . . . LOWEST PRICE!

This W5000 is the only six-wheeler with the work-proved V-6 engine . . . the truck built extra strong to stay on the job . . . the truck with the price tag that is right down with the lowest, compared truck for truck with comparable equipment. Have your GMC Truck Dealer prove all this to you.

GMC Truck & Coach • A General Motors Division
Pontiac, Michigan



TIGHTER TURNING IN CLOSE QUARTERS—Turning circle of this L4000 is as short as 34.2 feet, up to 13 feet less than conventional models. This outstanding maneuverability reduces delivery time and driver effort with easier driving and easier parking.

EXCLUSIVE V-6 PERFORMANCE ... SHORT TURNING ... CONVENIENT TO SERVICE ... EASY TO OWN

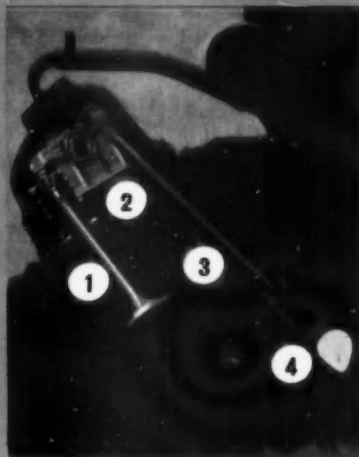
When medium-duty tilt-cabs are your choice, this GMC L4000 is hard to beat. Here's why—this is the only one you can get with the high-performance, extended-life V-6 engine...the truck that is ideal to handle where space is limited...the cab that manually tilts to uncover all the engine...52" set-back front axle for bigger loadings...the truck with the surprisingly low buying price, the least of all GMC tilt-cabs. Your GMC Truck Dealer has even more eye-opening facts. See him today.



ONLY GMC V-6 ENGINES GIVE YOU ALL THESE ADVANTAGES

- Top usable power over a broad range at low rpm for the highest performance, lower fuel costs and longest life.
- Choice of 305, 351 or 401 cu. in. engines... up to 210 hp.
- Up to 176 gallons of coolant circulating every minute, up to 3 times more volume than other engines, for greatly extended life.
- Bearing area is up to 60% greater than in other engines.

- Complete engine is designed to reduce maintenance. Example—spark plugs last up to 3 times longer than others.
- Valves resist costly failures.
 - 1 Both intake and exhaust valves have big heads; short, stiff stems; positive rotators; integral valve guides for best sealing, free breathing and cool operation. Aluminum brackets 2 help maintain proper lash at all temperatures. Short, rigid push rods 3 are practically free of deflection. Camshaft 4 has lobes that dip in oil to prevent cold-start galling and scoring.



CCJ BULLETIN BOARD

Outcry: Where's Detroit's safety car?

Detroit has been asked for years, "When are you going to build a safety car? We hear one is possible."

This year, however, some members of the public are no longer asking. They're demanding. Here's how the situation shapes up at the moment:

Some auto industry men are beginning to balk—or at least to explain why they're not "packaging" drivers against injuries. Others are sitting down at their drawing boards, seeing just what they can do. For instance:

- Roy Abernethy, executive vice president of American Motors,

says, "Our experience demonstrates the prudence of the industry's optional approach to innovations in automotive equipment."

- Reliance on packaging is not intelligent, says John F. Gordon, GM president. He says efforts to increase traffic safety require a balanced approach that puts proper emphasis on the driver and the highway as well as on the car. The foolproof packaging concept "is, of course, wholly unrealistic. It also is a serious threat to a balanced approach to traffic safety." He explains that an automobile must be designed so that people will want to buy and use it. "The suggestion

that we abandon hope of teaching drivers to avoid traffic accidents and concentrate on designing cars that will make collisions harmless is a perplexing combination of defeatism and wishful thinking," he adds.

- Despite such disclaimers to the ultra-safe car concept, top management at the Big Three companies are conscious of the demand for safer vehicles. One factory safety engineer tells *COMMERCIAL CAR JOURNAL* that, for the first time, safety people are being asked to sit in on top level sessions with stylists and engineers. And the top echelon is listening closely to what the safety experts have to say.

- Another evidence of significant activity in the field: SAE has formed a safety committee. You'll see results from this group. Right now, for example, it's looking for ways to standardize many auto controls—including such items as automatic transmission control, parking brakes, ignition switch locations and hood latches.



Confucius say: 'Loose nut on sander
mean more than one nut in shop is loose'

ICC turnpike checks again hit all classes of trucks

More than one-in-ten trucks checked by the ICC on the Pennsylvania Turnpike in October were ruled out of service.

Said *The Philadelphia Inquirer*: "... It is extremely important that trucks and tractor-trailers be mechanically safe; and the ICC checks show that, as it is, too many are defective. The public has a right to demand that such a situation be remedied by strong measures. It is a life-and-death matter for trucks to operate at high speeds on super-highways with bad brakes, faulty steering gear, worn tires and other critical defects."

In Ohio, too . . .

In the May and June safety road checks on the Ohio Turnpike, ICC ruled some 20.4 per cent of the ve-

(TURN TO PAGE 134, PLEASE)

Cut costs per mile with Sealed Power sleeves and sleeve assemblies



More quality and more miles are built into Sealed Power sleeves and sleeve assemblies ■ They last longer in heavy-duty service, cost less over the long haul because your rigs keep rolling (and earning), stay out of the shop. ■

Sealed Power sleeves are better four ways: (1) flange relief on the sleeve greatly reduces breakage; (2) uniform wall thickness means these sleeves fit, without honing, and that heat transfer is uniform; (3) fine cross-hatch finish on the ID assures quick ring seating; (4) chamfer on both OD and ID lets the sleeve slip easily and quickly into the block. ■

Sealed Power pistons are built to stand up in the toughest service ■ They have special finishes, reinforcing metal where it counts, incredibly precise pin holes ■ Rings include Cyclan iron or other heavily chromed rings for long life ■ Heavy-duty oil rings or Sealed Power's cost-cutting Stainless Steel oil rings are available ■ You can add tens of thousands of miles to piston life with the GI-60, a heat-treated spring steel insert that armor-plates the top groove. ■

These are just a few of the reasons you get more miles out of Sealed Power sleeves and sleeve assemblies. Why settle for less?



Sealed Power Motor Parts

SEALED POWER CORPORATION • MUSKEGON, MICHIGAN

Preferred Performance

PISTON RINGS • PISTONS • PISTON PINS • SLEEVES AND SLEEVE ASSEMBLIES • VALVES AND VALVE PARTS • TAPPETS • WATER PUMPS

STATISTICS

INDUSTRY DATA

1961 NEW TRUCK REGISTRATIONS BY GVW

GVW	Brack-way	Chevrolet	Diamond T	Divco	Dodge	Ford	F.W.D.	G.M.C.	International	Ken-worth	Mack	Peter-bill	Stude-baker	Volkswagen	White	Willys Jeep	Willys Truck	All Others	Total 1961
Under 6,000 lb.																			
Sept. 9 Mos.		16475		1	2212	14430		2030	4667				286	2260		1116	776	174	44429
6,001 to 10,000 lb.		145443		17	17326	137130		16433	33467				3223	20195		8590	6726	1839	362391
Sept. 9 Mos.		2769		182	679	3041		776	980				26				671		9150
10,001 to 14,000 lb.		33072		1277	6393	30535		8599	9672				506			31	5896		96386
Sept. 9 Mos.		246		61				49	237										593
14,001 to 16,000 lb.		4368		591				617	1959							2			7537
Sept. 9 Mos.		413			116	548		205	207				8						1497
16,001 to 19,500 lb.		5023			1117	4903		2591	2136				113						15083
Sept. 9 Mos.		3597		4	12	278		1217	1430									2	9615
19,501 to 26,000 lb.		31201		39	68	3039		9263	10590									27	83553
Sept. 9 Mos.		8		18		274		990	2004		45		18			90		6	5185
26,001 to 33,000 lb.		34		236		1954		33	6726		401		140			770		42	38856
Sept. 9 Mos.		26		85		28		279	730		1	230	1			486		1	2095
33,001 lb. and Over		188		911		402		175	2460		2	2222	33			5032		94	20316
Sept. 9 Mos.		72		15		13		25	138		106	345	35			289		13	1852
Sept. 9 Mos.		527		193		175		201	5196		850	4000	497			3673		296	20144
Total—1961																			
Sept. 9 Mos.	106	23872	122	256	3600	23119	30	5686	10614	107	620	36	340	2260	896	1116	1449	196	74625
Total—1960																			
Sept. 9 Mos.	749	223706	1373	1953	30406	216286	409	50587	83989	852	6623	530	3985	20195	9911	8590	12624	2290	675066
% of Total																			
Sept. 9 Mos. 1961	68	22228	154	232	3260	25488	27	6860	9207	93	827	55	584	1748	978	1033	1631	489	76072
% of Total	9 Mos. 1960	840	242326	2041	2438	32722	409	63349	86270	1207	8708	697	4200	24429	11541	7732	14063	5319	728613
Sept. 9 Mos. 1961	.11	33.15	.20	.29	4.50	32.04	.06	7.49	12.44	.13	.96	.08	.99	2.99	1.47	1.27	1.87	.34	100.90
Sept. 9 Mos. 1960	.12	33.25	.28	.33	4.49	30.24	.06	8.69	11.84	.17	1.20	.10	.58	3.35	1.58	1.06	1.93	.73	100.00

Compiled from official state records. Data property of R. L. Polk & Co. May not be copied, sold or reprinted without Polk permission.

1961 TRUCK TRAILER SHIPMENTS

1961 TRUCK AND BUS FACTORY SALES

Month	Total	Domestic Market	Foreign Market
January	79,317	67,685	11,632
February	85,019	67,899	17,120
March	100,164	78,627	20,337
April	94,283	78,045	16,238
May	101,781	85,592	16,189
June	114,221	87,061	27,160
July	90,655	73,163	17,492
August	70,710	55,734	14,976
September	84,068	66,802	17,266
Nine Months—1961	820,218	661,808	158,410
Nine Months—1960	938,508	763,102	175,406

Source: Automobile Manufacturers Assn. U. S. Plants only.

1961 TRUCK AND BUS TIRE SHIPMENTS

Month	Original Equipment	Replacement	Export	Total
January	257,958	835,328	47,624	940,910
February	260,586	968,172	48,855	1,277,613
March	313,348	719,356	51,652	1,084,356
April	332,283	787,524	42,748	1,162,555
May	346,319	771,950	42,038	1,160,307
June	332,270	949,023	39,923	1,321,216
July	258,463	802,318	41,015	1,101,793
August	271,407	949,575	45,610	1,266,592
September	270,417	885,396	49,561	1,214,374
Nine Months—1961	2,682,063	7,639,639	409,226	10,730,928
Nine Months—1960	3,140,131	7,110,450	601,740	10,852,321

Source: The Rubber Manufacturers Assn.

Type of Trailer	September	1961	1960
Vans			
Insulated and refrigerated	555	4,226	4,385
Steel	26	420	600
Aluminum	529	3,806	3,776
Furniture	90	941	1,692
Steel	53	710	1,472
Aluminum	37	231	220
All other closed-top	2,105	14,626	20,640
Steel	551	3,389	4,894
Aluminum	1,554	11,237	15,746
Open-top	202	1,800	2,211
Steel	76	701	622
Aluminum	126	1,100	1,589
Total—Vans	2,952	21,602	28,928
Tanks			
Non- and low-pressure			
Petroleum and aircraft refuelers			
Carbon and alloy steel	111	833	1,179
Stainless steel	12	125	197
Aluminum	143	936	1,380
Total—Petroleum	266	1,894	2,786
Chemical, food, and sanitary	45	423	568
Dry materials	91	1,230	969
High-pressure (LPG, chemicals, etc.)	23	243	277
Total—Tanks	425	3,790	4,590
Pole, pipe, and logging			
Single axle	14	514	179
Tandem axle	29		642
Total	43	514	821
Platforms			
Racks, livestock, and stake	34	404	337
Grain bodies	65	528	928
Flats, all types	619	4,774	6,945
Total—Platforms	718	5,706	8,210
Low-bed heavy haulers	142	1,978	1,584
Dump trailers	155	1,365	1,272
All other trailers	100	1,729	2,647
Total—Complete Trailers	4,535	36,674	48,652
Dump trailer chassis ¹	30	252	666
Trailer chassis only ¹	139	1,951	2,460
Total—Trailers and Chassis	4,704	38,877	51,180
Detachable van bodies ¹	100	2,195	2,470

¹ Sold separately.

Source: Industry Division, Bureau of the Census.



After 141,143 miles
NYLON CORD
 TIRES READY FOR
 RECAPPING!

After 141,143 miles
TYREX® RAYON TIRES
 STILL HAVE THOUSANDS
 MORE MILES OF
 SAFE WEAR!

141,143 MILE SHOWDOWN TEST PROVES TYREX RAYON TIRE CORD CUTS COSTS!

Continuing tests on Texas Fleet show Tyrex Rayon Tires mean more mileage, less downtime! In the grueling tests being made on the trucks of the Ray Smith Associated Companies of Dallas, Texas, TYREX rayon tires are outperforming nylon truck tires by far. After two years of testing, over all kinds of Texas roads and all heat conditions, some TYREX rayon tires have run as

much as 141,143 miles! With the average tire run 124,731 miles, all TYREX rayon tires show incredible superiority over nylon! Why this phenomenal difference? TYREX rayon tires run cooler, keep their strength as tire heat soars, grow 33% less than nylon. Big reasons for less wear. So, for bigger profits . . . less downtime . . . put TYREX rayon tires on your fleet.



CHEMICAL EXPRESS (used for test) operates 383 tractors, 505 trailers. Test tires are 1000/20 standard type, mounted on drive wheels. Trucks haul cement on hot Texas roads. Loads average 72,000 lbs. (4,000 lbs. per tire).

TYREX® rayon TIRE CORD

TYREX INC., Empire State Bldg., N. Y. 1, N. Y. TYREX (Reg. U.S. Pat. Off.) is a collective trademark of TYREX Inc. for rayon tire yarn and cord. TYREX rayon tire yarn and cord is also produced and available in Canada.

CCJ AT YOUR SERVICE

By Ed Shea, Technical Editor

School buses need PM, too

If school buses in your area show signs of needing an improved PM program, maybe you can jog local officials into doing something about it.

One well-known fleet maintenance executive did just that. At a recent industry meeting, he commented, "One day I got a close look at our school bus fleet. I didn't like it. So I went to the local powers-that-be and said, 'Either fix 'em and set up a better PM program or I'll refuse to let my kiddies get aboard.' Someone at the meeting asked, 'Well, Joe, what happened?'"

With a broad grin he said, "We now have one of the better school bus fleets and my offspring are riding them daily."

Salt's a blessing, but . . .

If fenders, rocker panels and other body parts on your equipment start rusting faster than usual, don't be surprised. This winter alone, city and state highway departments will be spreading over two million tons of salt to combat ice and snow.

Highway departments have discovered, unfortunately, that salt does a far better and faster job than cinders, sand or gravel. It's also cheaper, since automated equipment and the driver can do the complete job. This year, 38 states—virtually every one in the "snow belt"—will be using salt.

Older models, especially

You're the winner in the long run, since salt does break up ice quickly. But in making roads safer salt will speed corrosion on your vehicles, particularly older models which are not treated during assembly.

Several fleets we know are taking special steps to reduce rust-outs. Some simply wash under fenders, rocker panels etc., at the end of each day. Others, like Bell Telephone of Michigan, are rust-proofing the underbody with a special undercoating.

Check fork lifts' commutators

You're supposed to check the commutators on electric fork lift trucks at 1000-hour intervals.

It's simple to see if they're dirty or burned. Color is correct if it's uniform, ranging from copper to dark brown. But if it's mottled, the commutator is dirty.

Dirt will cause high resistance, arcing and heat build-up. Remedy: Clean it. But if it's burned, shows

signs of metal transfer, thrown solder or grooving—it's time to repair the unit or replace it.

One more tell-tale sign: If there are two burn marks, 180° apart (showing a definite brush outline), the commutator has been burned from motor stalling. Repair or replace it; then do what's necessary to prevent overloading it in the future.

Power steering: 10 years later

What has been the influence of power steering on America's car-buying habits?

Tremendous. And here's the evidence:

GM's Saginaw Steering Gear Division introduced power steering on GM cars just 10 years ago. Today power steering units are . . .

- 42 per cent lighter.
- Occupy half as much room under the hood.
- Sell for an average of \$92 less than the first models.
- They're factory-installed on 60.8 per cent of full-size GM cars, including 100 per cent of Cadillacs, 96.9 per cent of Olds, 92.4 per cent of Buicks, 84.9 per cent of Pontiacs and 38.6 per cent of Chevys.
- Power steering penetration of the compact market accounts for installations on 29.9 per cent of Buick Specials, 26.5 per cent of Olds F-85s and 6.8 per cent of Pontiac Tempests. It's not offered on the Chevrolet Corvair.





UTICA HERBRAND

the great new name in tools!

Herbrand, one of the automotive industry's largest producers of standard and special mechanic's hand tools, has joined forces with Utica . . . world's largest producer of quality pliers and adjustable wrenches for the electronic, mill supply, automotive and hardware industries. GREATER STRENGTH THROUGH UNITY . . . joining forces with Utica guarantees our ability to maintain the same high standards of quality that have made Herbrand famous since 1881. It also increases our capabilities for new tool development and on-time delivery. For news on the next "tool of the month" and big new developments ahead, see your established Herbrand jobber.

Utica / Herbrand

TOOLS DIVISION
KELSEY-HAYES COMPANY
UTICA 4, N. Y.

Boss: "What makes you think you made a mistake in hiring that new freight handler?"

Personnel Chief: "Something's very suspicious. Notice that every time he puts a carton in the trailer he stops to wipe his fingerprints off it."

Leadfoot Louie says: "Burning the candle at both ends makes it twice as hard to keep a wife in the dark!"

Wife: "Mort, wake up! There's a burglar going through your pockets!"

Maintenance Foreman: "Leave me out of it, Mabel. You two just go ahead and fight it out yourselves!"

Auto Salesman: "Let me show you something new in a snappy convertible!"

Maintenance Steno: "It won't do you a bit of good. Besides, I really don't think you could, anyway!"

A cartoon illustration of a woman in a polka-dot dress standing at an 'INFORMATION' desk, talking to a woman in a black dress. A sign on the wall shows a car with motion lines.

"All I seem to get is a lot of inquiries about myself!"

is your problem, take a tip from the late John D. Rockefeller. One of his top executives once made an error in judgment that cost the company more than \$2-million. Other executives expected John D. to blow his stack.

However, when they entered his office that gloomy morning, the boss was quietly sitting at his desk writing. In a few moments, he passed around a sheet of paper. It was a list of the erring man's good qualities. It was labeled "Points in favor of Mr." In the long list was one item telling how the man had helped the firm make the right decisions on three occasions. Each time he had made the company more money than the most recent mistake cost.

Next time you're tempted to rip into an underling, try John D.'s method. By the time you're through with the list you'll get the man's mistake pretty much in perspective. And you'll keep your temper under control.

as clear and easy to read as you think they are? Here's a simple three-step formula for checking readability:

- Count the words in the body of your next letter. Divide by the number of sentences to get an average sentence length.
- Count the words of three or more syllables per 100 words.
- Add the two figures, then multiply by 0.4.

The answer is your "Clarity Quotient." A CQ over 12 is hard to read. Above 17, and your letter requires the reading skill of a college graduate. Go much higher and your reader is apt either to misunderstand you—or just give up.

Check your next letter. Don't let a good idea get lost in a forest of words. (This item has a CQ of about 8. CCJ articles average about 10.)

according to a little "Worry Table" worked out to test the probabilities of something wrong really happening. Keep it handy. Maybe it will help you relax more.

Things that never happen	40%
Things that can't be changed by all the worry in the world	35%
Things that turn out better than expected	15%
Petty, useless worries	8%
Legitimate worries	2%

Next time you're upset and worried about something, remember: It's 50 to 1 against its being a real cause for concern.

There have been some changes in the social rules since Emily Post first laid down the rules of genteel behavior. Did you know it is now perfectly proper to keep your hat on in the presence of ladies in a crowded elevator . . . issue invitations to an informal party by writing the occasion, the date and the time across the top of your personal cards and mailing them out . . . walk on the inside instead of street-side of a lady companion if it means converting a simple stroll into a ballet just to get into position . . . keep your seat in a crowded public conveyance except for elderly women, pregnant women or women obviously overburdened with packages . . . wear bow ties to business?



Ryder mechanic replacing a Holley carburetor on an International R-190 with a new Holley carburetor, made to original equipment quality specifications. Mr. Wood inspects the original Holley carburetor which gave 171,000 miles of service.

**"With Holley replacement parts,
we are always sure of original equipment
quality and performance"**

**Says Walter W. Wood, Superintendent of Maintenance
Ryder Truck Rental, Inc., Division of Ryder System
Detroit, Michigan**

"We believe in replacing parts in our fleet trucks with those made by the original equipment manufacturers. We know from experience that they are designed and manufactured to fit right, work right, and give better service, because they are exactly the same as the parts they replace."

This is the reason why Mr. Wood always orders Holley replacement carburetors, and distributors, and uses Holley Repair Kits when overhauling Holley original equipment carburetion and ignition equipment.

With 231 lease and rental vehicles to maintain in Detroit, and over 32,000 in the national fleet, Ryder knows the importance of keeping trucks in good running order, ready to go anywhere at any time. Ryder considers its Preventive Maintenance program the key to its successful trucking operation and satisfied customers. This calls for inspection and general maintenance each 3,000 miles, which is supplemented by a minor tune-up every 9,000 miles, and a major one at 49,000 miles.

**See or Call Your
AUTHORIZED HOLLEY DISTRIBUTOR**

11955 E. Nine Mile Road, Warren, Michigan

T-14



Overhauling a Holley carburetor, the mechanic uses parts from a Holley Master Repair Kit as replacements.



HOLLEY
Carburetor Co.

**IT WILL PAY YOU IN PERFORMANCE TO REPLACE WITH GENUINE HOLLEY
PARTS—MADE TO ORIGINAL EQUIPMENT SPECIFICATIONS!**

COMING EVENTS

DATES AND DOINGS

JANUARY

- 8-12—Society of Automotive Engineers, Annual Exposition, Cobo Hall, Detroit.
- 9-13—American Automotive Leasing Assn., Annual Meeting, Miami Beach, Fla.
- 11-12—Regular Common Carrier Conference, Maintenance Committee Meeting, Hotel Tuller, Detroit.
- 28-Feb. 1—Associated Equipment Distributors, Annual Convention, Conrad Hilton Hotel, Chicago.
- 29-31—Truck-Trailer Mfrs. Assn., Annual Convention, Riviera Hotel, Palm Springs, Cal.

FEBRUARY

- 1-2—Private Truck Council of America, Annual Meeting, Statler-Hilton Hotel, Detroit.
- 8—Internal Combustion Engine Institute, Annual Meeting, Chicago.
- 12-15—Air Conditioning & Refrigeration Industry, Exposition, Los Angeles, Cal.
- 14-18—Assn. of Diesel Specialists, Annual Convention, Royal Orleans Hotel, New Orleans, La.
- 15-16—Car and Truck Renting and

Leasing Assn. (CATRALA), Annual Meeting, Congress Hotel, Chicago.

- 21-25—Annual National Autorama, Connecticut State Armory, Hartford, Conn.
- 25—Automotive Service Industry Assn., Annual Membership Reunion, Sherman Hotel, Chicago.
- 25-Mar. 3—Automotive Week, U.S.A., Automotive Service Industry Assn., Chicago.
- 26-27—Automotive Service Industry Assn., National Convention, Conrad Hilton Hotel, Chicago.
- 26-Mar. 1—Associated General Contractors of America, Annual Convention, Los Angeles, Cal.
- 28-Mar. 3—International Automotive Service Industries, Annual Show, Navy Pier, Chicago.
- 28-Mar. 3—Motor & Equipment Mfrs. Assn., Annual Meeting & Trade Show, Chicago.

MARCH

- 4-7—American Roadbuilders Assn., Annual Meeting and Highway Materials & Services Exhibit, Sheraton-Palace Hotel, San Francisco, Cal.

- 9-11—Movers & Warehousemen's Assn. of America, Annual Convention, El Mirador Hotel, Palm Springs, Cal.
- 12-16—Society of Automotive Engineers, Automobile Week, National Automobile and Production Meetings, Sheraton-Cadillac Hotel, Detroit.
- 13-14—Manufacturing Chemists' Assn., Symposium on Packaging of Chemical Products, St. Louis, Mo.
- 18-22—National Furniture Warehousemen's Assn., Annual Convention, Boca Raton, Fla.
- 20-23—National Assn. of Fleet Administrators, Annual Meeting, Sheraton-Cadillac Hotel, Detroit.

APRIL

- 1-4—Western Highway Institute, Annual Meeting, Riviera Hotel, Palm Springs, Cal.
- 2-5—American Gas Assn., Distribution Meeting, St. Francis Hotel, San Francisco, Cal.
- 9-13—American Welding Society, Annual Convention & Welding Exposition, Sheraton-Cleveland Hotel, Cleveland, Ohio.
- 9-13—Greater New York Safety Council, Annual Safety Convention & Exposition, Statler-Hilton Hotel, New York City.
- 12-14—National Truck, Trailer & Equipment Show, Great Western Exhibit Center, Los Angeles, Cal.
- 14-18—Petroleum Equipment Suppliers Assn., Annual Meeting, Boca Raton, Fla.

FLEET TRAINING COURSES

For addresses of sponsoring colleges, see page 232 of the November issue

FLEET MAINTENANCE

- Industrial Education Center, Wilson, N. C. (2-yr courses, 6 quarters)—Starting dates: Mar., Sept., Dec.
- Hudson Valley Community College, Troy, N. Y.—Feb. 7-Apr. 25.
- Rutgers University, New Brunswick, N. J.—Feb. 19-23.
- Syracuse University, Syracuse, N. Y.—Feb.-May.
- University of California, Los Angeles—Mar. 7-9.
- University of California, Berkeley—Mar. 12-14.
- North Carolina State College—Apr. 9-13.
- Penn State University—Apr. 23-27.

TOP MANAGEMENT

- American University, Washington, D. C.—Feb. 12-16.

FLEET SUPERVISOR

- University of Alabama—Jan. 22-26.
- University of California, Los Angeles—Mar. 5-6.
- University of California, Berkeley—Mar. 15-16.
- University of Oklahoma—Mar. 20-22.
- University of Washington—Apr. 30-May 4.
- Northeastern University, Boston, Mass.—May 7-11.
- Northwestern University, Evanston, Ill.—June 4-8.
- Penn State University—Sept. 10-14.

DRIVER TRAINER

- University of Utah—May 21-25.
- Penn State University—Oct. 8-12.

FLEET OPERATION

- Florida State Dept. of Education, Tallahassee—Feb. 12, 13, 14.

**FEATURE
SECTION
FOLLOWS**

SAFETY

IS ABNORMAL

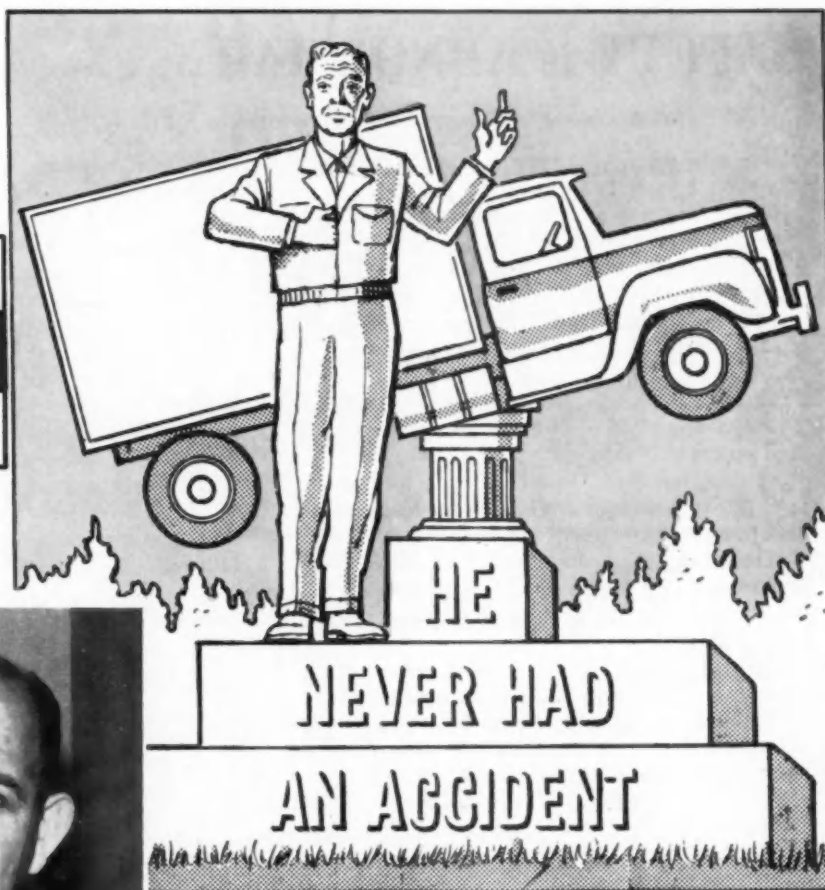
If you have a driver with a perfect safety record
'he's an abnormal critter indeed,' says noted safety expert
Don Buck. 'A lifetime of safe driving is itself
an accident!' But there are ways to make a driver safer

▼ NOT ONLY IS SAFETY ABNORMAL . . . it's unusual, unnatural, irregular and strange.

Safety is the exception to the rule.

It is contrary to what we logically can expect . . . It bucks the laws of probability.

Safety behind the wheel is attained by so few that I am convinced a lifetime of safe driving is itself an accident!



"A perfect safety record calls for
abnormal luck plus an
ever-present guardian angel . . ."

By Donald S. Buck

Safety Director, Continental Army Command, U.S. Army

Let's face facts. Freedom from accidents is unnatural and abnormal. To be safe, a driver must put forth unnatural effort . . . must suppress normal impulses.

This self-discipline results in what we call safety. It is something above and beyond normal behavior.

Accidents are the mark of the average driver. Being "normal" simply isn't good enough. We want drivers to be safe—or abnormal. How do you picture this

SAFETY is ABNORMAL . . . Continued

abnormal person, the safe driver? Ambitious? Young?

Here's the result of a study evaluating 5000 "safe" drivers . . .

The safe driver is an "old codger" crowding three score years. There's nothing wrong with having survived 57 years on this traffic-ridden globe. It just isn't normal to have a group of drivers this age.

On the normal side, the safe driver is married. Bachelorhood at 57 is as unlikely as an accident-free record.

He's medium-size. In other words, 5000 short, tall, fat and skinny drivers average out to an abnormal medium size.

When it comes to education, he's had two years of high school. Again an abnormal average. I don't know if more or less education makes a safer driver.

He drives about 18,000 miles a year. That seems low. I suspect that safety records of many professional drivers would improve if they reduced their exposure to traffic to 1500 miles a month. But I don't think this is normal.

Off-duty, he averages 8000 miles a year. This compares with my wife's total driving just looking for bargains. But I do regard her as being a bit abnormal.

The safe driver has been driving for 32 years—30 of them for the same boss. That is abnormal. He apparently wears well and stays put. Maybe it's the employer who is abnormal.

- He's easy-going, non-aggressive, non-competitive and generally satisfied with his present status. Such a person *has to be* abnormal. He simply isn't human. An easy-going professional driver is as unlikely as profanity from the preacher.

- He has 23 National Safety Council awards and has a perfectly clean record of traffic violations. Such a record is incredible. It calls for abnormal luck plus an ever-present guardian angel to whisk this driver and his rig far above the milling mess you and I drive through.

- He signals his intentions, he plans his driving well, he's ready for any situation, he automatically responds to emergencies, and he's cautious, careful and courteous. In other words, he's just too damn good to be true!

And there, you have it. Does he sound normal to you? I don't intend to ridicule some very

significant research. But it does point up how abnormal and unlikely the really safe driver is. He exists—but he's a rare critter indeed.

The trouble is that most of our drivers (and most of us) are not *really* safe. We never will be. Most of us have had accidents. Yet, our history is normal. It's to be expected. It's natural.

While this concept may conflict with the more popular practice of pinning labels such as "moron" or "sub-normal" on those involved in accidents, it does swing the spotlight of attention and recognition from the unsafe driver to the exceptionally safe driver. Our examples become the paragons of success, not examples of failure.

Average drivers have accidents

No one wants to be average, but accidents are the mark of the average person. And who wants an average driver? We want ours to be safe . . . to be abnormal.

Chronically unsafe drivers are just as rare in fleets as Mr. Safe Driver. After all, when a man begins piling up a horrible safety record, we fire him.

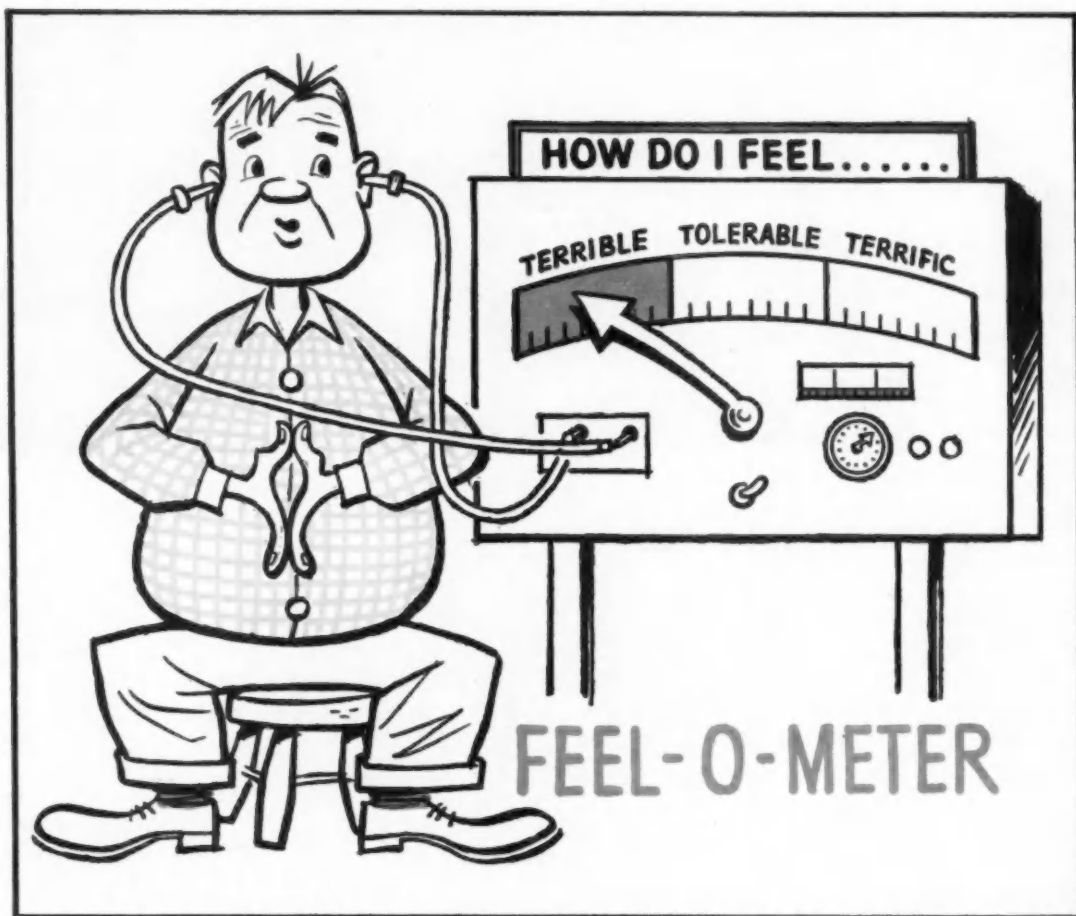
Want to know what a normally-unsafe driver looks like? Look in a mirror.

The trouble is, our attitudes change from day to day, hour to hour, minute to minute. We may feel decent and cooperative one moment . . . then inclined toward mayhem the next. We can be pretty decent—until the guy behind us blasts his horn to rupture our eardrums. Then, how do we feel? And are we subsequently safe?

If we could clearly categorize driver attitudes on a continuing basis, the problem would be simply to identify and control. We'd simply bar from driving the stupid jerks who have faulty driving attitudes. But every driver is an emotional chameleon.

Early in the morning, rested, in no hurry, a driver may be a paragon of emotional stability behind the wheel. But after a day of traffic stress and frustration he's liable to react like a different man. Now little things may inflame him. He's not a different man—but he may act and feel like one.

When we find a means of preventing bad moods of our drivers, we'll contribute to accident prevention. After all, to a very large degree the



"What we need is a 'feel-o-meter' to 'blow the whistle' on a driver when his blood pressure goes up or his attention goes down."

unsafe driver is our otherwise fine driver during the period when his feelings aren't up to par.

What we need is a "feel-o-meter," to "blow the whistle" on a driver when his blood pressure goes up or his attention goes down.

Tell-tale pre-accident signs

However, each individual exhibits some tell-tale pre-accident signs for which fleet supervisors should be on the lookout. Watch for these "storm warnings":

- **Manner**—Tense and troubled, exhibiting anxiety, strain, sadness, preoccupation or worry.
- **Behavior**—Excessive or chronic absenteeism and tardiness; loss of interest in prior pleasures; loss of appetite; increased drinking and

smoking; increased near-misses and minor accidents.

- **Attitude**—Less concern toward work, safety or near-accidents; increased grievances; hostility toward supervision; withdrawal from "the gang"; aloofness; increased complaints about minor discomforts and "sick calls."

- **Emotional stability**—Irritable, quarrelsome, edgy, restless, impulsive and excitable; easy to anger; lacks confidence; unable to rest.

We have little hope in selecting completely safe drivers. We have little success in training operators to be perfectly safe.

Yet, by applying some old principles, with the help of some new tools, we can turn some of our drivers into abnormal drivers. After all, who wants to be average?

Dameo Transportation is more than a fleet, it's a service.

More unusual is the extra-long life it expects and gets from tractors.

Here's how Dameo works it so that six out of ten are . . .



MILLION-MILE TRACTORS

VROCCO D. DAMEO runs a *transportation business*—not just a fleet—out of Somerville, N. J. Basic operation is Dameo Transportation Co., a contract carrier. It began operating in 1930.

Since then, to meet the needs of shippers, he includes among his interests a common carrier operation, an 80,000-sq ft warehouse, vehicle leasing (without driver), a rail siding with special bulk materials handling equipment. Planned for the future are storage silos for bulk dry chemicals.

In these operations, Rocco is aided by his two sons, Rocque and Danny. They're the management base for Dameo's expansion program.

All-in-all, there are 70 tractors—all Brockways—and 257 trailers representing most of the major builders—Trailmobile, Butler, Kentucky, Strick, Dorsey, V&W, Great Dane and Fruehauf.

Trailer types reflect the basic building materials hauling business plus expansion into dry bulk commodities. There are 41 vans, 10 dump trailers, 6 fleet-built pole trailers, 12 dry chemical tankers, 20 hoppers and 168 flatbeds (includ-

ing four especially equipped for hauling brick with Superlite unloaders).

Million-mile tractors

Most interesting aspect is a maintenance program that aims to get a million miles out of each tractor! Does it work?

Dameo figures 500,000 miles per engine, has to decide at that point if the tractor will go another 500,000 with a short block replacement. About six out of 10 times, the answer is "Yes."

And then there's "Old No. 8." This is a 1934 model still in use. Dameo says it's a 2½-million miler. That's 27 years of service at better than 90,000 miles a year on the average. It no longer hits the road, now serves as a yard jockey. This was Dameo's first tractor, and Rocco himself was behind the wheel for a lot of those miles. It was sleeper cab equipped until it was put into yard service.

Dameo claims a repair and servicing cost of 5.8¢ per mile. This compares well with the average 6.3¢ per mile for fleets with average haul under 400 miles, as reported in the Budd Co.



Aerial view shows Dameo terminal and warehouse. Building at far left is headquarters and maintenance shop. At right is the 80,000 sq ft warehouse



Rocco Dameo (center) flanked by his two sons Danny and Rocque, fill in details of new Butler trailer for CCJ editors Ed Shea, at left, and Ernie Forest

ATA Foundation Vehicle Cost Study. And says Dameo, we average less than five road failures a year.

The tractors are all gasoline powered, most with the Brockway/Continental 572-cu in. engine. They total about 50,000 to 60,000 miles a year. Dameo does lease a few owner-operator diesels.

Dameo relies on inspection rather than mileage intervals for overhaul of engines and other parts. Shop Foreman Everett "Butch" Hatton checks out complaints registered. . . .

- By the driver during the pre-trip safety check.

- By the driver on his trip "gripe sheet."

- By the *mechanic* who's in the pit during the weekly vehicle lube.

- By the results of crankcase oil analysis. (This also sets the oil change interval.)

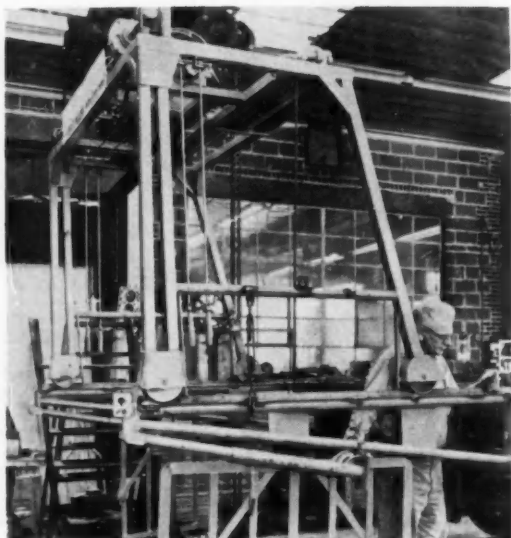
- By the analysis of fuel and oil consumption.

"No power" complaints are checked on a chassis dynamometer when there's no readily apparent answer. It's also used after overhauls or installation of a new short block.

Each engine or short block rebuilt during its



"Ol' Number Eight" . . . the 2½-million mile Brockway that is 27 years old. Although not in long haul service any more, it still works daily in the yard

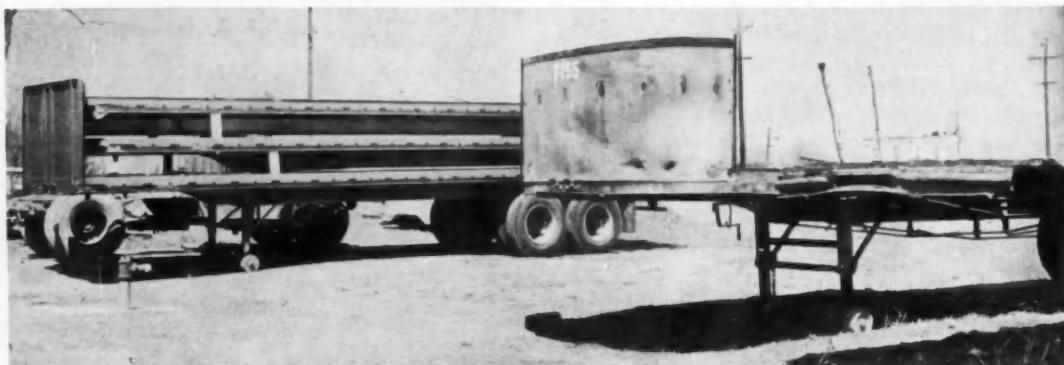


Shop Foreman "Butch" Hatton is key man in getting long equipment life. Here he's checking over a new Superlite unloader

Dynamometer rollers have been combined with unused grease pit to give access to tractor undercarriage during dyno testing



A new Dorsey flatbed with two new flatbed frames are recent purchases. Dollies and axle assembly on old trailer will be salvaged



MILLION-MILE TRACTORS

Continued

500,000-mile life gets three in-frame overhauls. Cylinders are bored to .020; .040 and .060 oversize. Pistons are put back in stock if they can be reworked to standard or oversize specs. Sometimes, but not often, the rebore pattern is .030, .060 and then resleeve.

Cylinder boring is done by an outside service with portable boring bar rig. Also done by outside specialists are valve seat grinding, piston resizing, flywheel balancing and wrist pin fitting.

What factors enter into the decision to put in the short block and try for a million miles?

Well, there's no magic formula. Each tractor is considered separately when the time comes. Condition of the chassis and cab enters into the decision. So does the shop workload and the fleet's need for power. Complete cab rebuild is not unusual when it keeps the shop working at peak capacity. There's also the individual vehicle record.

In brief, it's a question of how much is the tractor presently worth, how much more life can Dameo get out of it, at what cost with a steady shop workload?

Dameo doesn't figure any salvage value on a

tired tractor. He pulls off all the good parts, especially non-moving components not subject to excessive wear as well as those that can be rebuilt at the shop's convenience at low cost. Beyond that, says Dameo, the tractor's value is "whatever the current price on scrap metal happens to be."

The same philosophy applies to the fleet's trailers. For example, at the present time Dameo is converting some old, round nose flatbeds to new, square fronts. Again depending on the need for equipment and the shop workload, this may mean an all new frame (salvaging only the old suspension) or extensive rebuilding.

Four tractors are used in the 5-mile shipper-to-yard-service. They're equipped with Bartlett hydraulic-lifting fifth wheels and RCA 2-way radio with the base station in the dispatch office.

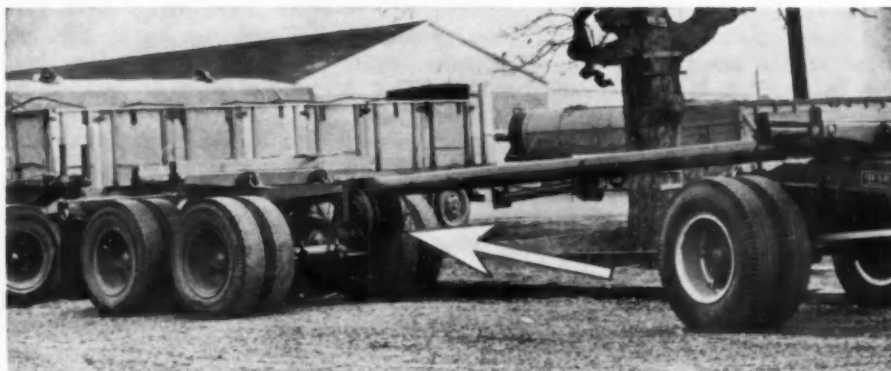
Dameo has several regular daily runs. Also there are many irregular runs during the construction season since he hauls directly to the building site as well as distributor warehouses.

Empty return on longer hauls—Massachusetts or Virginia—is a problem. A partial solution has been to use the rigs themselves as a return load. It works this way: If four flatbeds go out, one returns hauling two tractors and another returns hauling two trailers.

Shown at left is one of Dameo's Delta-Trailmobile tanks for hauling bulk products. Overhead warning device checks height of loads on flatbed trailers



Many pole trailers (shown below) are shop-assembled by Dameo. Note reel which the fleet added to give extra brake hose when trailer is expanded



Allyn's tank trailers HAUL STEEL

Western fleet solves the dilemma of liquid loads on trip out, solid cargo on return run. Key was special rigs to haul either

▼ "NEVER MISS A PAYLOAD-MILE . . ." might be the motto of a California tank truck fleet which has turned to a couple of radical combination rig designs to make both ends of an intrastate haul pay off.

Cargos on one of the rigs are sulphuric acid and steel. Fuel oil and steel are on the other. And more designs for equally impressive combinations are in the planning stages.

Allyn Tank Line, Inc., of Los Angeles, is using rigs of its own design to transport 23 tons of fuel oil to Kaiser Steel at Fontana, Cal. The rig's return haul is 23 tons of steel for Kaiser customers in the Los Angeles area.

The other rig carries 23 tons of sulphuric acid under pressure, and it also returns with 23 tons of steel.

The tractor-trailer rigs were designed by Stan Roach, Allyn sales engineer. The problem of wasted return runs came up when the traffic department of Kaiser Steel at Fontana was hunting better hauling methods for some of its raw products and finished materials. The two-way haul was suggested and taken to several trucking firms. No one wanted to tackle the engineering job.

Allyn President Bill Collinge gave Roach the go ahead on the sulphuric acid job. Roach, working with Utility Trailer Co., came up with the design. It uses a basic Utility trailer with a dromedary tank slung amidships. The steel then goes on either end, on 12-ft loading spaces.

When the pilot model worked so well on the acid-steel rig, Kaiser indicated the same approach might be made with fuel oil and steel.

Again Roach took out his slide rule. He adapted a standard Fruehauf trailer and slung an integral "belly" tank under it. The flatbed floor of the trailer is the top of the fuel oil tank. Another tank was put up front between axles on a 4-axle Peterbilt tractor unit. That left the 37-ft flatbed top free to haul steel.

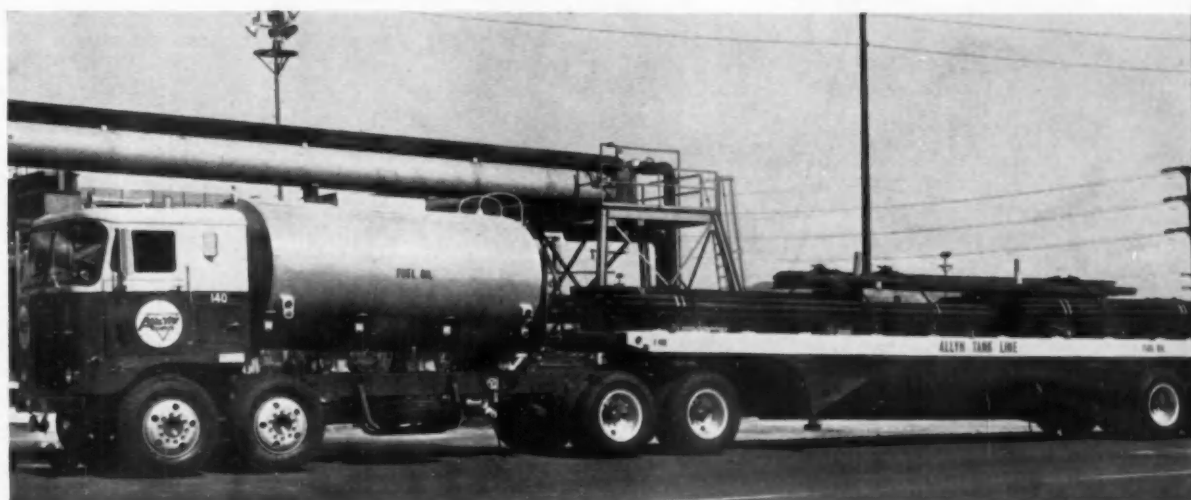
Load limits on both rigs are up to top permissible axle limits. Only payload loss on the two rigs was 2000 lb each—to accommodate the two-way fittings.

However, Allyn counts among its savings a \$30,000 tractor which can be used for other hauls; cost of a trailer for the steel hauls; and, of course, mileage and a driver's time.

Roach says there is a potential for six or eight acid and fuel oil-steel combination rigs at the Fontana plant. All-aluminum-alloy trailers will be used to increase the payload. Allyn also hopes to get permission to use a different type of unloading operation for the acid. At present it is done with pressure. Roach, however, feels it could be done just as easily by gravity feed into a pump which would pump it into overhead tanks. Then the pressurized tank could be replaced with an aluminum tank—not only to increase payload, but to drop the center of gravity by slinging it lower.

A different Peterbilt truck-tractor will also be used on the fuel oil rig, he said. Allyn has no need for a sleeper compartment on the present short run.

The present Peterbilt double front wheel steering probably will be retained. With only one axle in front, there was too much weight



Allyn's steel-carrying tankers take either of these forms. Rig in top photo hauls fuel oil to Kaiser Steel's Fontana, Cal., plant. It brings 46,000 lb

of steel to Los Angeles on return run. Other rig has same weight capacity. It also carries steel, but liquid load is sulphuric acid under pressure

thrown on it. The second axle solved the weight problem. But it had to be converted to a double steering setup so the second axle tires would not be scuffed to pieces after only a few miles. The double steering front wheels give the rig a very short turning radius for its size.

Here is a more specific description of the two rig types:

The acid combos have a 3000-gal MC-311 pressure-type tank mounted in the center of a 40-ft Utility semi-trailer. Steel coils, packaged tin plate, or sheet steel in up to 12-ft lengths can be loaded on the two 12-ft flatbeds at front and rear of the tank. Tanks are products of

Buehler Tank, Orange, Cal. The tractors are 3-axle conventional Kenworths, powered by 220-hp Cummins diesel engines. The acid combos operate around the clock, six days a week.

The fuel oil unit is a pilot model. It has a clear 37-ft flatbed and can be loaded with almost any length of steel product shipped on any other conventional semi-trailer. This particular trailer is an all-steel model by Fruehauf Trailer Co. Fuel oil is loaded through a trap door on the same level as the deck of the flatbed. Fruehauf also manufactured the aluminum tank. The rig is also powered by a Cummins 220 diesel and operates night and day, seven days a week.



Four-cyl diesel engine gives truck a top speed of 52 mph. It replaces a 6-cyl, 223-in. gasoline engine

Adohr tries DIESEL for milk delivery

California fleet discovers some problems,
still expects big bonus from engine



VONE OF THE WEST'S leading dairies has taken the big step to find out if diesel engines are the answer to rising costs in home milk deliveries.

Adohr Milk Farms, Inc., Los Angeles, has powered a Model No. 350 refrigerated Ford delivery truck with a Model No. 220 Ford diesel.

They hope to find out in another year or so whether it is practical to convert entirely to diesel engines for home delivery operations.

Already, some of their fuel consumption information goes a long way toward supporting

contentions of persons who have been encouraging consideration of diesel engines for this type of service.

"At the end of five months of operation," remarks Adohr's Transportation Manager Bob Erickson, "our diesel is averaging between 11.5 and 13 miles per gallon. Similar vehicles powered with gasoline engines of approximately the same displacement average about seven mpg."

Erickson adds that it will take more than good fuel consumption, however, to keep the diesel in
(TURN TO PAGE 144, PLEASE)

Where to find it in CCJ

1961

INDEX

For your convenience, a guide
to the year's features grouped under the subject
headings usually used by fleets
in subdividing the broad field of fleet management

Month, Page

Month, Page

BUS FLEETS

1961 bus service data	Apr. 152
1961 bus oil and lube data	Apr. 152
1961 bus selection specifications	Apr. 240
Annual bus and passenger travel statistics	Apr. 270, 276
Automation speeds bus service (Madison Bus Co.)	May 104
For ailing transit: T y charter	June 86
Shop hints from Topeka Transportation	Aug. 98
Transit profits from Christmas tours	Nov. 21

COSTS & RECORDS

Maintenance cost study finds some "yardsticks"	Mar. 115
Government fleet operating facts	Apr. 198
Analysis of 1960 common carrier costs	May 13
How to spot out-of-line vehicle costs (C. R. Trzcinski)	May 94
Cutting passenger car costs (A. E. Fitzpatrick)	May 97
Western fleetmen pool data on PM intervals	June 88
Fleet manager's guide to accident costs	June 98
How Halle Bros. Dept. Store uses trip recorders	June 100
Highway taxes: Are the problems solved?	Aug. 88
How to get each vehicle's cost (Consolidated Edison)	Aug. 92
Accountants can boost vehicle use (Oscar Horvitz)	Dec. 95

EMPLOYEE & LABOR RELATIONS

Denver-Chicago: Teamwork is first order of the day	Feb. 102
Fleet relations: How to put across your ideas	May 88
Great Lakes Express shines in United Fund Drive	Sept. 211
What do Teamster defections mean?	Oct. 9
How to prevent a mechanic shortage in your fleet	Oct. 86

FLEET MANAGER'S GUIDE

Checking new vehicles when they're delivered	Jan. 104
Safe handling of LP gas (W. D. Cook)	Mar. 118
Cutting passenger car costs (A. E. Fitzpatrick)	May 97
Troubleshooting the new vehicle paints	June 92
Fleet manager's guide to accident costs	June 98
Fitting fork lifts to your fleet	July 90
Your job in a defense emergency	Oct. 84

FLEET OPERATIONS

Ideas for fleetmen from three new terminals	Jan. 81
Belyea pulls longest dam haul on record	Jan. 109
Profitable fleet ideas from Denver-Chicago	Feb. 99
Denver-Chicago: Terminal planning	Feb. 112
Chautauque County (N.Y.) snow removal program	Feb. 115
Refrigeration: How to get the most from equipment	Mar. 106
Two-way radio reduces need for terminals	May 164

Technical Editor Ed Shea reports on German fleet	June 75
For ailing transit: Try charter	June 86
ATA Regular Common Carrier Conference meeting	July 9, 25
Rates that ruin	July 86
Routing, key to vehicle control (Akers)	Sept. 74
New terminal is north-south breakpoint (Akers)	Sept. 83
Truck stops, vital link on the long haul (Akers)	Sept. 84
Try non-stop unloading (Anheuser-Busch)	Sept. 90
Your job in a defense emergency	Oct. 84
Transit profits from Christmas tours	Nov. 21
Accountants can boost vehicle use (Oscar Horvitz)	Dec. 95

FLEET PASSENGER CARS

1961 fleet passenger car service data	Apr. 186
1961 fleet passenger car oil and lube data	Apr. 186
How to spot out-of-line vehicle costs (C. R. Trzcinski)	May 94
How you can control passenger car PM (Ed Shea)	May 94

FUELS & LUBRICATION

1961 truck oil and lube data	Apr. 83
1961 bus oil and lube data	Apr. 152
1961 fleet passenger car oil and lube data	Apr. 186
Roving shop for fleet lube service	Nov. 302
Gear lube facts (R. K. Smith, Elco Lubricants)	Dec. 100

INDUSTRY STATISTICS

Ten top dollar volume ICC Class I carriers	Jan. 177, Apr. 272, July 166, Oct. 132
Annual vehicle statistics: Registrations, sales, production, exports, tonnage, costs, shipments, passenger-miles, transit riders, trucks, semi-trailers, buses, diesel trucks, bodies, types of trucks	Apr. 263
1960's top 40 ICC Class I carriers	Apr. 312
Rates that ruin	July 86

LEGISLATION & REGULATION

Refrigeration: Voluntary standards or enforced code?	Mar. 97
1961 state size and weight limits	Apr. 194
1961 lighting and safety equipment requirements	Apr. 201
1961 vehicle inspection laws	Apr. 208
1961 mud guard requirements	Apr. 210
1961 state vehicle tax guide	Apr. 214
For-hire carriers attack "gray area" trucking	June 9
Rates that ruin	July 86
Highway taxes: Are the problems solved?	Aug. 88
Your job in a defense emergency	Oct. 84
ATA convention emphasizes "gray area" fight	Nov. 9

(Turn to next page, please)

CCJ 1961 Index

Continued from page 93

Month, Page

MAINTENANCE

Programs & Procedures

Darling Freight adds "how" to "what" in PM checks	Jan. 102
Checking new vehicles when they're delivered	Jan. 104
"COD" means long life for Sun Oil rigs	Jan. 104
Belyea pulls longest dam haul on record	Jan. 109
Denver-Chicago: Maintenance geared for long hauls	Feb. 107
1961 truck service data	Apr. 83
1961 bus service data	Apr. 152
1961 engine service data	Apr. 162
1961 fleet passenger car service data	Apr. 186
Spark plug heat range selection chart	Apr. 248
How you can control passenger car PM (Ed Shea)	May 94
Automation speeds bus service (Madison Bus Co.)	May 104
Six ways to lower tire costs (O. S. Edwards)	May 100
Western fleetmen pool data on PM intervals	June 88
Putting a lift in lift-truck PM	July 92
Why ring jobs go sour (A. H. Jensen)	July 100
Eastern Express cuts filter service costs	Aug. 83
Getting the most from truck scales (A. Sanders)	Aug. 104
Shop layout is geared for fast service (Akers)	Sept. 78
Why Eastern Express retreads its own tires	Oct. 82
1962 Fleet Maintenance Exposition	Dec. 9
Million-mile tractors at Dimeo Transportation	Dec. 86
Maintenance boosts safety at Texas Construction	Dec. 98

Tools & Equipment

Denver-Chicago: Maintenance geared for long hauls	Feb. 107
How to save parts cleaning time	Feb. 181
Automation speeds bus service (Madison Bus Co.)	May 104
Aluminum parts can be welded	May 179
ATA Regular Common Carrier Conference meeting	July 9, 25
Shop hints from Topeka Transportation	Aug. 98
Shop layout is geared for fast service (Akers)	Sept. 78
How to prevent a mechanic shortage in your fleet	Oct. 86
1962 Fleet Buyers' Directory	Nov. 94
Roving shop for fleet lube service	Nov. 302
1962 Fleet Maintenance Exposition	Dec. 9

PUBLIC RELATIONS

Denver-Chicago: Teamwork is first order of the day	Feb. 102
Fleet relations: How to put across your ideas	May 88
Letters about LIFE editorial	Sept. 144
Great Lakes Express shines in United Fund Drive	Sept. 211
Truck driver chapel in New Orleans	Oct. 174

REFRIGERATION

Refrigeration: Voluntary standards or enforced code?	Mar. 97
Refrigeration: Urethane foam insulation	Mar. 100
Refrigeration: How liquid nitrogen system works	Mar. 104
Refrigeration: Precooling with carbon dioxide	Mar. 105
Refrigeration: How to get the most from equipment	Mar. 106
Refrigeration: Emery's LTL cargo control	Mar. 108
Refrigeration: Alterman's training program	Mar. 110
Red Owl uses 2-compartment, multi-temp reefers	Nov. 300

SAFETY & DRIVER TRAINING

How to combine part-time drivers and full-time safety	Jan. 107
Denver-Chicago: Magnificent safety record	Feb. 114
Refrigeration: Alterman's training program	Mar. 110
Safe handling of LP gas (W. D. Cook)	Mar. 118
Road safety checks—western style (R. R. Kay)	Mar. 120
1961 lighting and safety equipment requirements	Apr. 201
1961 vehicle inspection laws	Apr. 208

Month, Page

American Standards Assn. accident definitions	May 83
Liberty Mutual's car design for safety	June 17
Points in finding the "safe" driver	June 97
Fleet manager's guide to accident costs	June 98
Casebook of an accident sleuth: Stephen Blewett	July 95
My next car will have seat belts (Jim Hamilton)	Aug. 95
ATA Council of Safety Supervisors 1961 meeting	Sept. 9
Safety program: Each year better results (Akers)	Sept. 80
How to get seat belts fastened (Jim Hamilton)	Sept. 88
Safety men find research usable	Nov. 88
Safety is abnormal (Don Buck)	Dec. 82
Maintenance boosts safety at Texas Construction	Dec. 98

SHOP MODERNIZATION

Denver-Chicago: "Bridge deck" controls shop	Feb. 108
Shop hints from Topeka Transportation	Aug. 98
Used engine oil heats shop (Adley Express)	Aug. 106
Shop layout is geared for fast service (Akers)	Sept. 78
Why Eastern Express retreads its own tires	Oct. 82

SPECIFICATIONS

1961 bus selection specifications	Apr. 240
1961 engine selection specifications	Apr. 244
Spark plug heat range selection chart	Apr. 248
1961 transmission selection specifications	Apr. 251
1961 trailer suspension specifications	Apr. 256
1961 truck selection specifications	Apr. 228, July 108, Oct. 118

VEHICLE & EQUIPMENT DESIGN

CCJ's new mobile office	Jan. 98
Belyea pulls longest dam haul on record	Jan. 109
How fleets use high-flotation tires	Jan. 144
Denver-Chicago: Equipment for profitable operation	Feb. 104
Denver-Chicago: Rolling stock standardizes components	Feb. 105
Refrigeration: Urethane foam insulation	Mar. 100
Refrigeration: How liquid nitrogen system works	Mar. 104
Refrigeration: Precooling with carbon dioxide	Mar. 105
Refrigeration: Emery's LTL cargo control	Mar. 108
For longer tire life, watch fleet PM program	May 100
AMA-TTMA brake horsepower rating formula	May 117
Navy tests palletized loader	May 120
Technical Editor Ed Shea reports on German fleet	June 75
A warm engine is a healthy engine	June 80
Turbines power International Nickel ore trucks	July 104
Mack and GMC are backbone of road fleet (Akers)	Sept. 72
Department store delivery combinations (J. L. Hudson)	Sept. 87
Try non-stop unloading (Anheuser-Busch)	Sept. 90
Are 4-cyl engines coming back?	Sept. 156
Retread tires: Who uses them?	Oct. 80
Mechanical hand speeds trash collection	Oct. 170
High-strength steel in truck bodies	Nov. 250
Concrete pipe trailer plus unloader	Nov. 291
Flotation tires give smooth high-speed ride	Nov. 296
Red Owl uses 2-compartment, multi-temp reefers	Nov. 300
Tank trailers haul steel (Alllyn Tank Lines)	Dec. 90
Multi-stop milk delivery with diesel (Adohr Farms)	Dec. 92

VEHICLE SELECTION & REPLACEMENT

Denver-Chicago: Rolling stock standardizes components	Feb. 105
Truck selection engineering formulas	Apr. 240
Utility fleetmen discuss automatic transmissions	June 25
Color is important	June 154
Fitting fork lifts to your fleet	July 90
Mack and GMC are backbone of road fleet (Akers)	Sept. 72
Department store delivery combinations (J. L. Hudson)	Sept. 87
Try non-stop unloading (Anheuser-Busch)	Sept. 90
What's new in the 1962 cars	Oct. 88
1962 Fleet Buyers' Directory	Nov. 94
Multi-stop milk delivery with diesel (Adohr Farms)	Dec. 92

Accountants can boost VEHICLE USE

Call on them for costs . . .

Use their fact-finding ability to get the most from your trucks

. . . says Oscar Horvitz, treasurer, *Spector Freight System*

VTRUCKS ARE tricky. They represent well over half the industry's total assets. But . . .

They have a relatively short useful life. They are vulnerable to loss through accidents, negligence and obsolescence.

To get the most from them, you have to keep them humping. A good dispatcher is part of the answer. Another—and often overlooked—part is your accountant. He can boost vehicle use through adequate cost and operating records when it comes to . . .

- Setting-up your basic operating plan.
- Measuring vehicle use.
- Keeping vehicle costs in line.
- Replacing tired or out-of-date vehicles.
- Leasing possibilities.

He can help with both line-haul and city equipment. These last need special attention. Many a fleet has trouble keeping PU&D truck utilization efficient.

Call on your accountant when you first set-up your basic fleet operating plan. Have him make cost estimates for the proposed operation. But also have him go a step further. He should review the possible alternatives from a cost viewpoint.

Biggest job for the accountant is supply-

ing the facts so you can tell if you're getting the most from your trucks.

Equipment utilization is measured in two different ways. Mileage measures vehicle life expectancy. Tonnage or loading measures its earning ability. The two must be correlated against time—per day, per week, per month, per year—to be of value to you. Establishing operating budgets for vehicle use on such a basis gives you the yardsticks against which performance can be measured.

Consideration should be given such factors as the nature of the vehicle, the operating plan, maintenance, expected loadings and earnings and the cost of the vehicle. These include operating costs as well financing obligations and return on investment.

The yardsticks should be attainable . . . but only at optimum efficiency. For example, here's how a basic mileage budget might look. . . .

- Conventional 2-axle tractors—Relay operation—300 miles per trip—10 trips per week—Budget: 3000 miles per week.

- Sleeper cab 2-axle tractors—Two-man operation—1000 miles per trip—4 trips per week—Budget: 4000 miles per week.

(TURN TO NEXT PAGE, PLEASE)



SPECTOR FREIGHT SYSTEM, INC.

OPERATING HIGHLIGHTS

	1960	1959
Revenue Per Intercity Mile	.697	.690
Operating Expenses Per Ton	46.12	42.73
Operating Ratio	102.3	95.1
Average Number of Employees	2,943	3,136
Total Miles Traveled	62,164,380	70,880,358
Tons Billed	961,549	1,088,103

NOT INCLUDING GREAT AMERICAN TRANSPORT, INC.

Vehicle use

Continued

• Three-axle tractors—Straight through operation—1250 miles per trip—2 trips per week—Budget: 2500 miles per week.

Where does the accountant fit in? He can help establish the mileage budgets and keep them up-to-date. He should make periodic reports comparing actual performance with the budgeted yardstick. The reports should be made frequently enough to be of immediate value.

Reports should include facts on each vehicle . . . as well as summaries by type, by operation, etc. "Light mileage" units should be pinpointed. Such reports can be a real management tool.

Truck earning measurement

Measuring truck use in terms of loadings helps find the profit in your operation. Consider, for example, a carrier whose line haul costs equal about half his revenue. If he can boost his average load from 25,000

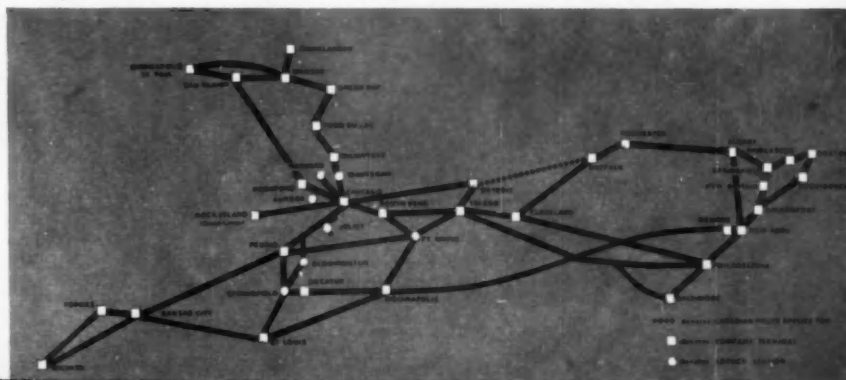
to 25,500 lb, he should realize a 1 per cent increase in operating ratio. Most of such a boost should end-up as profit.

Your accountant can help set-up the records and reports so you can spot such a potentially profitable situation. This means analysis of terminal operations, volume of particular commodities, specific line-haul movements and the like.

Standard costs

With standard costs, you can give operating personnel the responsibility of analyzing the costs and potential profit of a move as it happens—or even before it happens. With such yardsticks, they too can make profitable decisions.

As applied to vehicle utilization, a useful standard cost is revenue equipment depreciation. If you base depreciation on mileage, operations needs only know this per-mile rate and the total miles for a par-



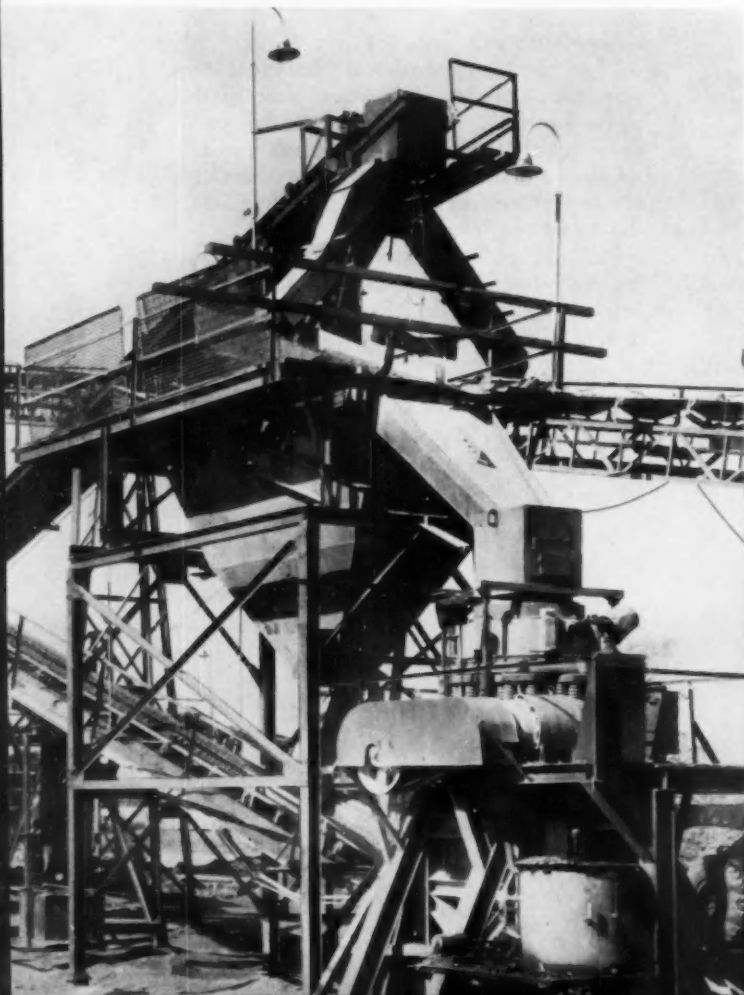
Maintenance boosts plant-wide safety

**Texas Construction Materials Co.
sets six-year record of no lost-
time accidents. Maintenance Dept.
ingenuity plays key role in both
safety and production standards**

By L. H. Houck

▼ YOUR MAINTENANCE DEPARTMENT can play an important role in safety. At Texas Construction Materials Co., Houston, Tex., it has helped this construction fleet win national awards for six years without a lost-time accident. In addition, it has boosted profits through greater production with less downtime.

Texas Construction Materials Co. operates six quarries and gravel plants producing 3½ million tons of aggregates annually—making it one of the largest producers in the country. The Helms plant near Columbus, Tex., puts out 400 or 500



tons per hour and operates 8 to 10 hours daily.

Outstanding feature of this plant is the steel work designed by E. H. Lawrence, vice president and production manager for the company, and George Cox, vice president of Aggregate Plant Products Co., San Antonio, Tex. As shown in the accompanying pictures, there are no movable ladders, shaky handrails or unlighted walkways. The Maintenance Dept. installed the necessary piping, ladders and lights to make this plant as safe as possible. Hence, the six consecutive citations from the National Sand and Gravel Assn. and the Texas Assn. for no lost-time accidents.

Belt guards boost life

An unusual feature of this plant is that all V-belt drives which run machinery are equipped with shop-built welded-steel guards and covers. "This not only makes these drives safer for workmen," says Lawrence, "but the belts last much longer. We quickly learned that by keeping the abrasive material out of the drives, belt life is five to six times longer than before."

The Maintenance Dept. of Texas Construction Materials Co. also has the unusual distinction of having completely fabricated three production

(TURN TO PAGE 148, PLEASE)



Maintenance Dept. built the 4-yd dragline in foreground used to strip overburden. Shop built everything including boom except the Cat D17000 diesel. Background is a 9-W Bucyrus-Erie Monighan walker swinging a 10-yd bucket over a 140-ft cut in river

Symonds cone crusher (far left picture) has shop-built guards over V-belt drives for safety. Belt life is 6 times longer since guard keeps out abrasive dust. Note safety screens and wooden hand rails bolted to steel supports to give greater safety protection to maintenance men. Photo directly at left shows sturdy steel railings, screens and lights to guard workers as they cast oversize rocks off belt. These safety features helped the Helms plant set a six-year safety record for no lost-time accidents

Traveling transformer below, with Maint. Supt. G. L. B. Cousins demonstrating the quick-disconnect coupling, is easily moved when scalping plant and pumps move up or down the river. Note safety fence



LUBE IDENTIFICATION

When it comes to transmission and axle lubes, there's a certain amount of confusion.

Basic grouping for lubes is by **VISCOSITY**. Standards here are SAE 75, 80, 90, 140 and the little-used 250. Also you'll sometimes find SAE 50 engine oil recommended.

Next to be considered is the **SERVICE** for which the lube is designed. American Petroleum Institute (API) defines these as . . .

- Regular type gear lubricant—generally suitable for use in automotive transmissions (except automatic types) and most spiral bevel and worm gear differentials.
- Worm type gear lubricant—generally suitable for use in truck type worm gear rear axles under very severe conditions.
- Mild type EP gear lubricant—having load carrying properties suitable for many automotive transmissions and spiral bevel differentials under severe conditions of load and speed.
- Multi-purpose type gear lubricant (API Service GL4)—having properties required to provide satisfactory lubrication of hypoid gears and conventional differentials, including adequate load carrying ability for protection of such gears in sustained high speed and/or high torque service in modern high-powered passenger cars and trucks. They are suitable for use in spiral bevel gears, many transmissions and for worm gears in some types of service. Such lubricants are identified as meeting API Service GL4.

The Mild type EP lubes are seldom used today. When checking vehicle maker recommendations, be sure what is meant. It could be the heavier EP characteristics of the Multi-purpose type lube.

Beyond the basic Multi-purpose definition, some vehicle makers add such recommendations as . . .

- Lubes with specific additives, such as SCL (sulfur-chlorine-lead).
- Lubes with a specific score load (anti-scoring ability).
- Lubes meeting military (MIL) specifications.

These last give rise to controversy. MIL specs define what physical properties the lube shall have to meet the tactical requirements of military vehicles. You'll find two sets discussed today.

There's the older MIL-L-2105 and the newer MIL-L-002105A(ORD). And there's where the trouble starts. Among lube men, it's argued back and forth as to whether lubes meeting only this new MIL spec are suitable for commercial vehicle application.

Best starting point for fleetmen is the recommendation of the vehicle maker. You could have warranty problems otherwise. But such recommendations are for "average" vehicle use. Because of "non-average" operation you may be having a gear wear problem.

Next step would be to meet with your vehicle maker and your lube supplier to see if a switch in lube practices or the lubes themselves might solve the problem. The report at right will give you some points to consider . . .

GEAR LUBE FACTS

▼ DON'T TAKE gear lubes for granted. Total cost of a gear failure can easily exceed the cost of selecting and using an adequate gear lube.

For example, based on actual fleet records, a differential gear failure can cost . . .

- A local delivery fleet with small trucks up to \$1000 per failure.
- An intercity freight carrier up to \$3500 per failure.
- An off-highway truck fleet up to \$15,000 per failure.

What's involved in avoiding these costs? First, selection of a lube *designed* to do the job to be done. Second, buying a *quality* lube that will perform consistently well during the lube interval. Third, setting *realistic* lube intervals—neither overextending the lube nor dumping it while it's still doing a job. And fourth, using the *correct* amount of lube. In brief: Match your lube PM to your fleet operation.

Here are the advantages you'll get when you make the right lube . . .

- Increased service life. The proper lube for a particular gear design is

By R. K. Smith,
The Elco Lubricant Corp.

**Confused about gear lubes?
Do you know what an SCL
lube is? Here's what you should
know about additive-type transmission and axle
gear lubes—plus how to troubleshoot pinion gear tooth failures**



Lube failure ruined this pinion gear. Severe spalling was caused by chemical etching or welding action

physically and chemically adapted to meet operating conditions. Trouble-free axle life of over a half-million miles can result from proper gear lube selection.

- Lower operational costs. Truck axles are precision units, expensive to replace—in addition to the high cost of shop time, parts, disrupted schedules. Proper lubrication keeps maintenance and breakdown to a minimum.

- Purchasing economy. Standardizing on the fewest different lubes often means lower purchasing cost, savings in storage space, less danger of lube mixup, maximum protection under all driving conditions.

- More payload. A properly selected lube will handle abnormal driving conditions as well as the day-to-day conditions. Equipment can be operated more continuously and dependably under adverse loading, high torque, low speeds . . . without danger of lube failure.

A lubricant, broadly speaking, is any material placed between two moving parts to reduce friction. An automotive gear lube actually forms a thin film of protection on gear components.

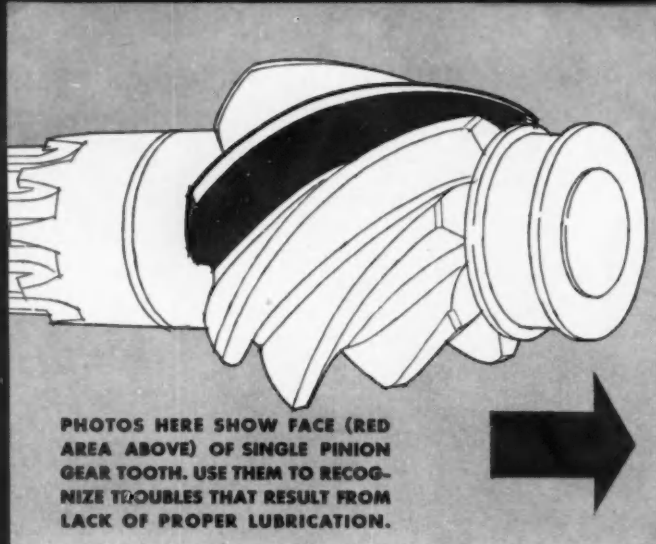
As a gear train rotates, the pressure and rubbing of meshing teeth generate heat from friction. To cool moving parts, the thin lubricant film provides a medium for transfer of heat from the gear to the oil reservoir as lube circulates in

a rear axle housing. It prevents metal-to-metal rubbing, stops wear, scoring, scuffing, spalling, scratching, welding and pitting because it is chemically treated to resist these phenomena. It assures satisfactory, quiet operation over long service periods.

Although there are many different types of gears—worm, spiral-bevel, hypoid, spur, helical, herringbone—they all have basically the same functions. They transmit power, change speed or change the direction of torque. They are all subject to shocks and to sliding or rolling friction.

However, different gear designs present different types of friction and load pressures, thus require different types of lubricants. This is where SAE viscosities and the API Service definitions come in. They are given in detail in the introductory comment at left. To meet the all-around requirements of API's Multi-purpose (MP) gear-lube definition straight mineral oil is fortified with additives. Here's why . . .

To combat today's severe demands of load and speed on equipment hypoid gearing is now quite common on fleet vehicles. Unfortunately it also presents one of the most difficult lubrication problems. To maintain a thin film of lubricant, under the high contact pressures and temperatures of hypoid gear sets, requires a high quality

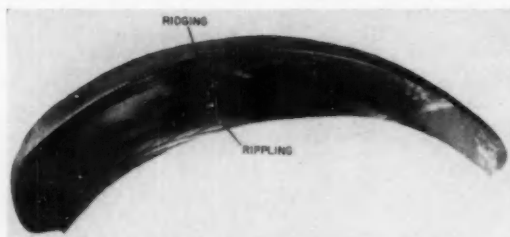


PHOTOS HERE SHOW FACE (RED AREA ABOVE) OF SINGLE PINION GEAR TOOTH. USE THEM TO RECOGNIZE TROUBLES THAT RESULT FROM LACK OF PROPER LUBRICATION.



PROPER LUBRICATION MAINTAINS GEAR TOOTH IN GOOD CONDITION

This blow-up of a pinion tooth shows what a good tooth should look like. Compare this one with the adjacent pictures of pinion teeth which have failed



Deforming of the tooth surface is result of ridging and rippling. Combination of high temperature and reduced lube film thickness is cause, not scoring



Welding, scoring and scuffing are usually caused by chemical failure of the lube to prevent metal-to-metal contact. Abrasives in lube cause scoring

GEAR LUBE FACTS . . . Continued

MP lube. These same operating conditions also require a top-line MP lube for spiral-bevel axles.

The success of MP lubes in meeting these conditions is evidenced in the fact that many operators are now also using this type of lubricant in manual transmissions to increase service life, decrease maintenance expense.

The key factor in MP gear lubricants is the use of additives. Even the finest base oils do not have sufficient load-carrying ability to maintain the protective film between hypoid and spiral-bevel gear teeth under today's operating conditions.

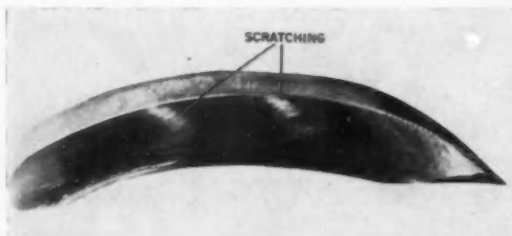
Additives are required to insure protection from film breakdown under high speed or high torque. If the protective film is destroyed through thermal breakdown or oxidation, thickening and corrosive products result. Chemical instability results in loss of EP (extreme pressure) protection as well as introduction of corrosion. With the loss of lube film, metal-to-metal contact is permitted and welding or spalling of teeth results. (These and other results of inade-

quate gear lubrication are illustrated above.) This also increases the temperature of the lubricant, causing rapid oxidation or thickening of the lube.

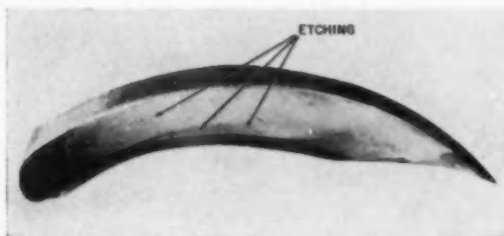
With operation at high speed, encountered in turnpike or thruway driving, film breakdown produces severe scuffing or scoring of tooth surfaces. These conditions are counteracted by a lubricant with good anti-score properties.

In off-highway operation or with heavy loads and steep grades, the high-torque conditions can produce surface distress, such as rippling and ridging, or, in the presence of highly active chemicals, pitting and spalling. Good lubricant film strength is a measure of the "oiliness" of a lubricant which enables it to maintain the thin film between mating surfaces under extreme pressure conditions.

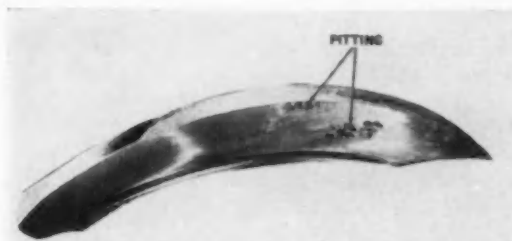
Additionally, high-torque operation subjects bearings to high rolling loads. Lubrication problems are wear, solved by adequate film strength, and chemical etching, which may be avoided if the additives offer balanced chemical activity.



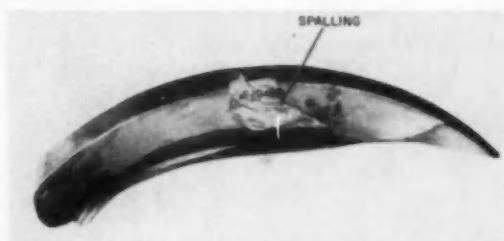
Scratching shows up in the first stages of wear. It is caused by dirt or abrasives in the lube. Either dirty lube was put in or dirt got in through vent



Etching is caused by chemical attack on gear tooth. Wrong axle lube selection with insufficient or improper additives is to blame. Pitting is next step



Pitting is the advanced stages of etching. It's invariably caused by chemicals attacking gear teeth. Selection of correct gear lube would prevent this



Failure of lube film allowed metal-to-metal contact resulting in spalling (chipping). It sometimes begins as etching, progresses to pitting and spalling

Without this balance of chemicals, the temperatures and pressures of operation may break down a lubricant and the additives might chemically attack the gear or bearing metal . . . producing pitting, spalling, and deposits. Hardening and failure of seals may also result.

Corrosion is a major problem in both steel and bronze gear parts. Rusting or oxidation in the presence of moisture is always a threat. A good lube must provide rust and corrosion protection, especially over long periods of equipment shutdown. If downtime rusting occurs, the particles are loosened during start-up and may cause early failure through abrasive wear on gears and bearings.

And loss of lubricant through foaming is retarded by anti-foam agents.

To get the most from today's lubes, adherence to practical and reasonable drain and refill intervals is necessary. Even in normal operation, moisture, dust and dirt, metal particles and heat eventually "wear out" the lube.

- Moisture results from condensation within

the axle housing. It can be pulled in through the axle vent hole. With some types of lubricants, moisture promotes chemical attack of steel or bronze during idle time. It also causes rust.

- Dust and dirt inevitably find their way into the lubricant, contaminate the lube film and act as abrasives on gear teeth.

• Metal particles result from normal wear in properly lubricated axles. As they accumulate, or in the presence of excessive dirt, they cause wear on gear surfaces. Without proper draining, the grinding action of metal particles increases the amount of metal present and adds to the problem. Some axles are equipped with magnetic drain plugs to accumulate this metal and prevent excessive wear.

- Heat, resulting from severe service or destruction of the thin film of lubricant on gear teeth, can produce thickening and deterioration of even the best lubes.

In the past three years, a lot of conflicting claims, misinformation and controversy have de-

GEAR LUBE FACTS

Continued

veloped around military (MIL) gear lube specifications.

The well-established MIL-L-2105, Multi-purpose lubes contain SCL (sulfur-chlorine-lead), SCP (sulfur-chlorine-phosphorus), or SP (sulfur-phosphorus) additives. They meet requirements of modern passenger car and truck axles.

The newer MIL-L-002105A (ORD) lubricants contain SCPZ (sulfur-chlorine-phosphorus-zinc) additives and are required for use in transmissions and axles of military trucks. However, these have not been entirely successful in commercial fleet use.

Two major axle manufacturers caution against the new SCPZ lubes because of marginal anti-rust properties and limited application. In heavy-duty use in commercial vehicles, they do not offer proper thermal stability and moisture-corrosion protection necessary for long, trouble-free service.

The new MIL-L-002105A (ORD) specifications,

developed for unique conditions, are based on laboratory testing of the L-37, $\frac{3}{4}$ -ton military truck axle—a unit of considerably smaller size and different metallurgy than commercial truck axles.

At the recent American Society of Lubrication Engineers' meeting in Philadelphia, two major automotive equipment manufacturers presented results of test programs which pinpointed shortcomings in the MIL-L-002105A (ORD) gear lubes.

A leading bearing manufacturer reported that the SCL lubricants were the most stable and provided the most satisfactory performance. In contrast, the MIL-L-002105A (ORD) lubricants were more temperature sensitive and resulted in deposits, corrosion and bearing wear.

A major car and truck producer evaluated gear oil stability. Two of the new military specification types were found to be deficient in terms of (1) bearing corrosion and surface distress, (2) corrosion and deposits on component parts, and (3) pinion shaft seal compatibility. These two were judged as not satisfactory for filling this maker's axles.

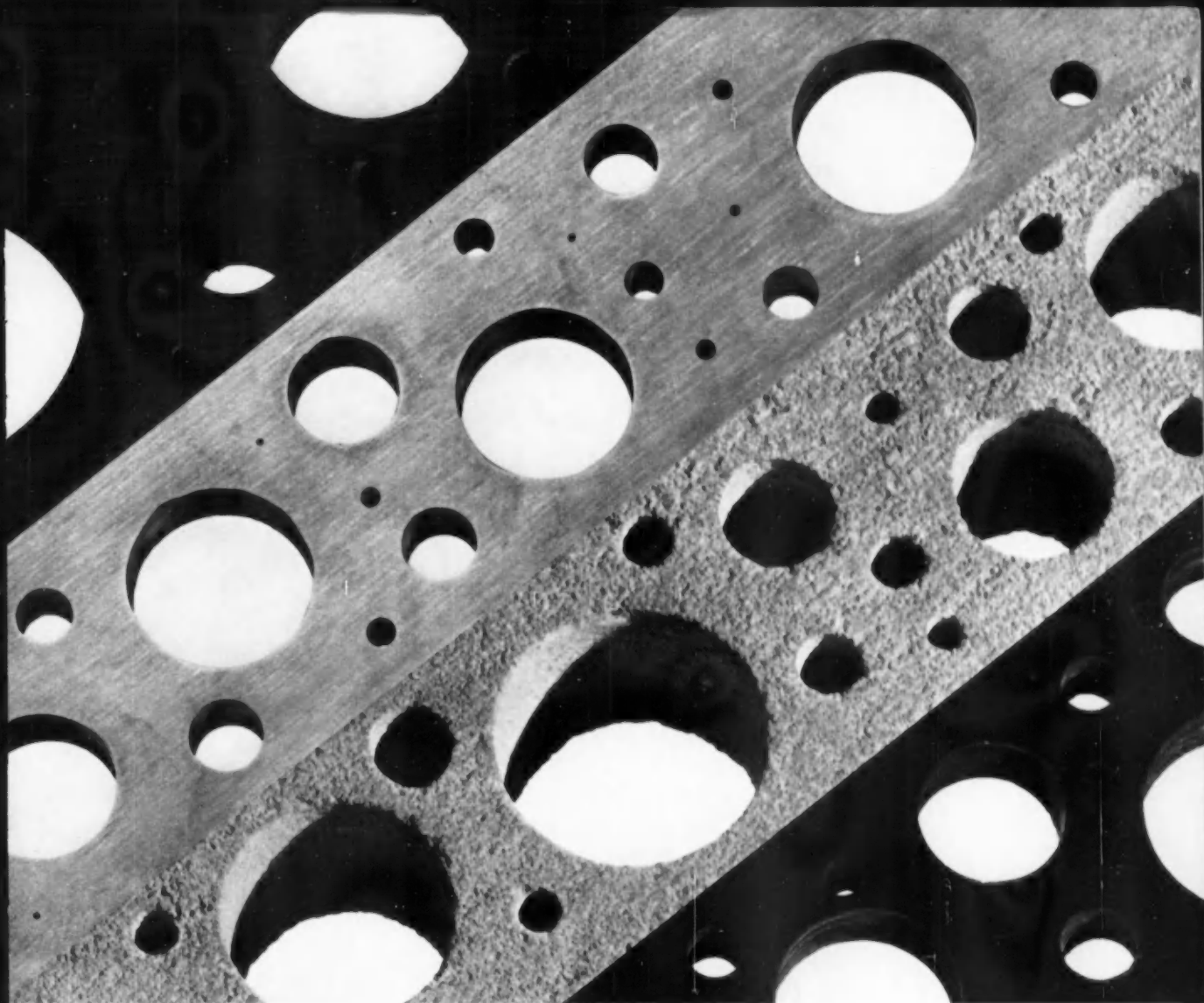
Throughout industry, the general feeling seems to be that until improvements in thermal stability, moisture-corrosion protection and other properties are made, there is sound basis for universal acceptance of the MIL-L-002105A (ORD) lubricants by commercial fleet operators.

What does an axle gear failure cost?

COST	LOCAL FLEET	INTERCITY FLEET	CONSTRUCTION FLEET
Average downtime for repair of gear failure—	24 hr	15-30 hr	8-24 hr
Average vehicle earnings lost per hour—	\$15-17	\$10-125	\$50-200*
Average driver or operator lost-time cost—	\$20 (1 man—8 hr)	\$90 (2 men—15 hr)	\$32** (1 man—8 hr)
Typical parts cost for repair of vehicle—	up to \$500	\$135-min \$500-avg	up to \$1500
Average labor cost for repair of vehicle—	\$24 (1 man—8 hr)	\$90 (1 man—15 hr)	\$96-min (2 men—8 hr)
Total cost per axle gear failure—	up to \$1,000	up to \$3,500	up to \$15,000

*—Based on typical hauling rates for off-highway trucks on an "Equipment Job." Figures vary, depending on operations.

**—If a crew is held up, this figure may be expanded to include up to 20 men at up to \$40 a day each, plus several satellite pieces of equipment.



There's a Black & Decker Drill for every hole on this page

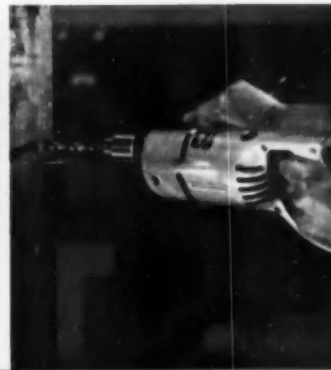
And now for every Black & Decker Drill (all 58 of them), there's 20-25% longer life, extra drill power, handier handling. These built-in bonuses attest best to the tool engineering and design that never follows, always leads. ➡ ➡ ➡

New Motor Varnish—insulates motor wire for running-temperatures up to 38% higher, increases overload capacity as much, and adds to motor life.

Advanced Commutator Lead Fusing gives better bonding at higher temperatures. New carbon brushes get 50% longer life, cut commutator wear.

Improved Cooling System uses new-design fans, larger ventilating holes to make every Black & Decker Drill the coolest handling tool for the job.

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BLACK & DECKER'S LONGER LIFE LINE

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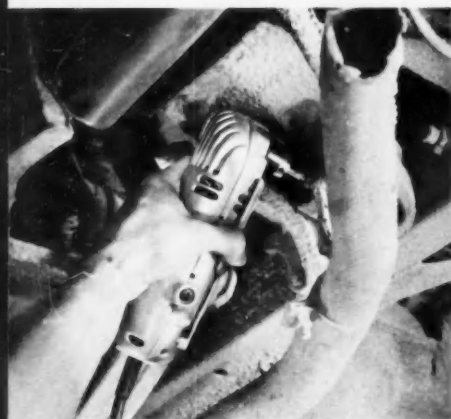
NEW! 1/2" End Handle Drill is ideal for tough repair and maintenance jobs. So powerful it has 48 ft./lbs. lock torque, highest of comparable tools.



NEW! 1/2" Right Angle Drill has a head for getting around corners, in cramped quarters. Reverse the end attachment to speed up or slow down.



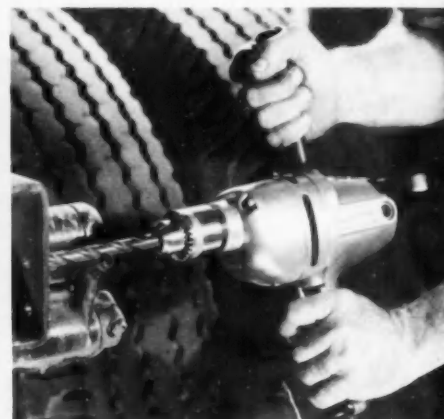
REDESIGNED! 1/4" End Handle Drill has a slimmer, more compact profile, ball-bearing construction. Features long-life and cooler running motor.



1/4" Shorty Drill is a compact little helper that works in and out of the tightest spots with knuckle-sparing ease. Twin fans make this a cool tool.



3/8" Scru-Drill® gives you a drill and screwdriver in one... for engine work, body and trim, fuel pumps, generators and all kinds of general maintenance.



1/2" Special Drill is more compact with more power than any drill its size. Makes a perfect companion for the man servicing big over-the-road rigs.

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Diamond T diesel Model 921DN

DIAMOND T QUALITY is NOT CONVERSATION

EVERY Diamond T diesel, of course, is custom-built to the job. There is a choice of 6 engines, 12 main transmissions, 6 auxiliaries, 11 rear axles, 12 tandems, 3 positions for front axle, etc.

This is desirable, even necessary, but not unique. It is in the rigid quality standards of basic specifications that Diamond T cannot be matched.

How Diamond T does it

For example, this new "D" Series is built with 10" frame siderails of heat-treated chrome-nickel molybdenum steel—tensile strength 115,000 lbs. per sq. in. This is a higher quality—and higher cost—frame material than is used by anyone else in the industry, so far as we know. Diamond T Cummins engines have costlier aluminum fly-wheel housing, gear-case cover, intake manifold and oil-pan—with compression release standard.

Muffler is Hopkins light weight, matched with

lightweight stack and supports. Standard batteries provide 150 amp. hours of capacity at 24 volts output. Hydraulic shock absorbers are standard, front tow pins, stainless steel hood trim, cast aluminum radiator tanks for "F" models. Radiators have extra capacity and unusually large frontal area. Radiator shutters are standard equipment.

Superior Cab Construction

Cab is of rugged girder-type construction, of welded steel, insulated. It is a full 72" wide and 57 $\frac{1}{16}$ " high, provides exceptional arm, leg and head room. Visibility is outstanding—the two curved windshields are of "Solex" glare-absorbing safety plate glass. Extra heavy-duty windshield wipers are standard, two sun visors are supplied. Three large cowl ventilators are controlled from the dash.

Diamond T quality is *not* conversation! Compare specifications before you buy.

DIAMOND T TRUCKS

Established 1905



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YOU GET A BETTER RUN FOR YOUR MONEY...

with ***F-85's*** in your fleet!



V-8 PERFORMANCE

Every Oldsmobile F-85 is powered by a water-cooled aluminum V-8 (155 or 185 h.p.) to give you the best balance of performance and economy!

HANDLING EASE

Oldsmobile's F-85 steers easily . . . can turn in a tighter circle than almost all other cars on the road!

Get your free copy of Oldsmobile's '62 "Fleet Facts" Folder! Write National Fleet Sales Manager, Oldsmobile Division, General Motors Corporation, Lansing 21, Michigan.

ROOM TO SPARE

The F-85 is *sized right!* There's more room in the rear of sedans this year, and trunk has a usable luggage capacity of 12.1 cubic feet.

RESALE VALUE

Official industry figures prove that the F-85 is popular on the used car lot! Owners can expect to receive Oldsmobile's traditionally high resale value.

F-85 
by OLDS

There's **"SOMETHING EXTRA"** about owning (or leasing) an OLDS!

108

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COMMERCIAL CAR JOURNAL, December, 1961

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NEW 1961

Fruehauf Volume★Van Truck Bodies Are Trailer-Strong!

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The new 1961 Fruehauf Volume★Van Truck Bodies are now joining fleets all across America. And they are ready to *help you earn more*, too! Here is the industry's *first and only* truck body with the rugged dependability and low maintenance cost of truck-trailers. Feature-for-feature the new Fruehauf aluminum Volume★Van Truck Body incorporates all of the durability, all of the longer-life features of the Fruehauf Volume★Van Trailer, at a cost so low you'll find it hard to believe!

Your choice of weight-saving aluminum beaded panel or exterior post design, ready for mounting on your chassis. Available in a wide variety of doors, options and lengths to fit your particular hauling needs. See them now at your local Fruehauf Branch—or contact Fruehauf Trailer Company, Detroit 32, Michigan.



The Yardstick of
Quality in the
Trucking Industry!

**FRUEHAUF
TRUCK BODIES**

FRUEHAUF TRAILER COMPANY

10952 Harper Avenue • Detroit 32, Michigan


Please send me complete information on your Trailer-Strong 1961 Volume★Van Truck Body.

Name _____ (please print)

Company _____

Address _____

City _____ State _____



*Alcoa Aluminum's bonus:
11 to 13 more bbl of gas.*

Heil tankers of Alcoa Aluminum deliver



"Ninety per cent of our tanker fleet of gasoline and light oil units is aluminum. Basically, we like aluminum because it gives us a bonus payload of 600 to 700 gallons in tanks ranging from 6,500 to 8,300 gallons. We also like the better appearance and easy cleaning. Our customers, too, prefer to have their aviation gas and petrochemicals delivered in rust-free aluminum. So you see we are leaning more and more to aluminum, not only in tankers, but tractor cabs and frames as well. Some of these tanker rigs with sleeper cabs travel as much as 200,000 miles a year."



Another new Heil modular aluminum tanker ready for delivery to Earl Gibbon Petroleum Transport. These units feature a new functional design which requires 39 per cent less welding.

With a testimonial like this from Mr. Earl C. Gibbon, president of Earl Gibbon Petroleum Transport, Bossier City, La., there's little need to say any more than this: *To roll up more profit every trip, specify Alcoa® Aluminum for your new tankers.*

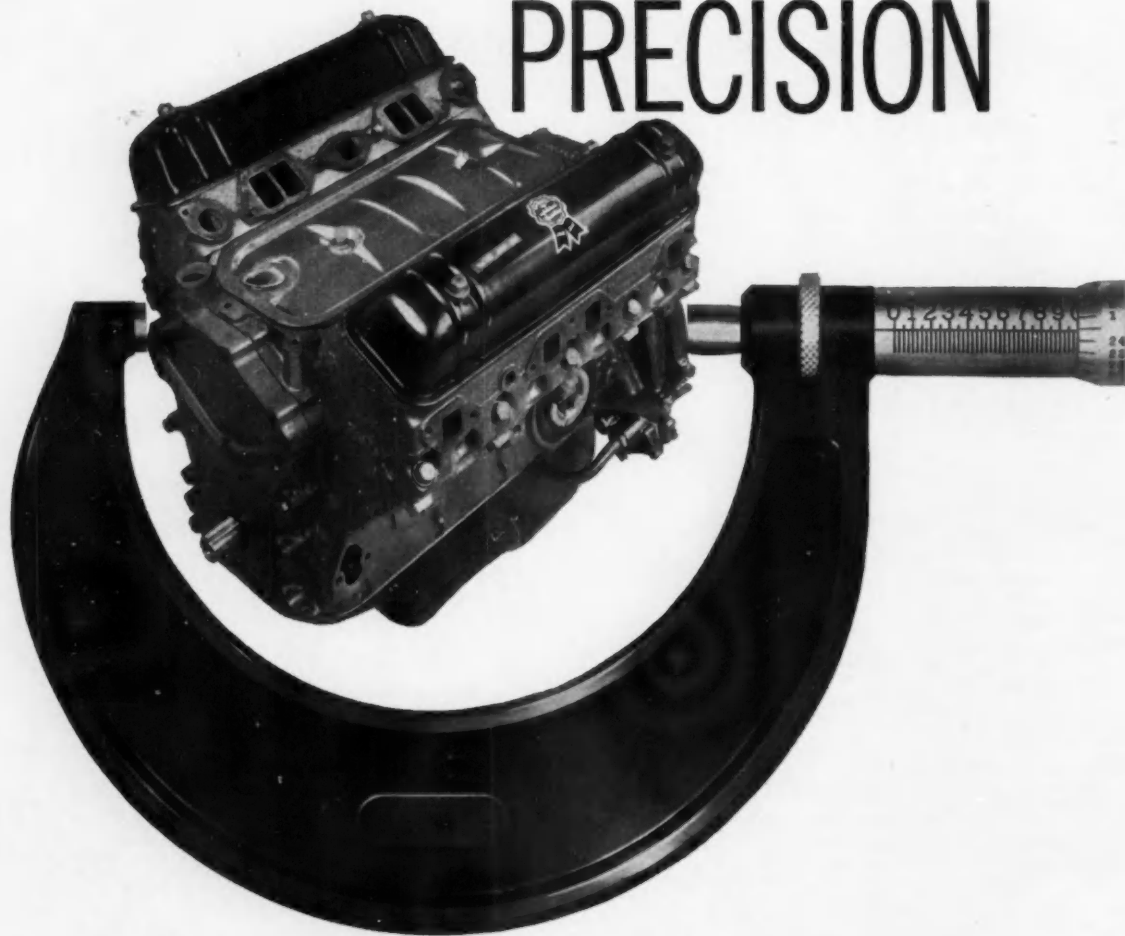
For information on other operator case histories and technical information, call your nearest Alcoa sales office. Or write to Aluminum Company of America, 1785-M Alcoa Bldg., Pittsburgh 19, Pa.

Member **ATA** FOUNDATION INC. American Trucking Industry

Entertainment at Its Best . . . **ALCOA PREMIERE**
with Fred Astaire as Host . . . Tuesday Evenings, ABC-TV

ALCOA ALUMINUM
ALUMINUM COMPANY OF AMERICA

PRECISION



IF THEY'RE NOT AS GOOD
AS NEW ...



THEY'RE NOT
FORD AUTHORIZED

Precision checking of each machining and assembly operation—performed by skilled technicians—is the reason for the quality of Ford Authorized Reconditioned engines, transmissions and small parts. These are the *only* products remanufactured to Ford Motor Company specifications. They carry the Authorized Reconditioners Seal . . . your assurance of good-as-new quality from the inside out.

Your Ford dealer is the source for the complete line of Ford Authorized Reconditioned engines, transmissions and small parts. Every one you buy is built for service . . . priced for savings.

There is no finer replacement unit. Your Reconditioners' Warranty proves it.

See your local Ford Dealer

**FOR THE COMPLETE LINE OF FORD AUTHORIZED RECONDITIONED
ENGINES • TRANSMISSIONS • SMALL PARTS**

**R_x for more profits
in transportation:**

Molded Fiber Glass



Ford truck panels

We prescribe a new concept of materials and design — save weight, tooling time, tooling costs — eliminate rust and corrosion.

Molded Fiber Glass **MFG** — the structural plastic — is light weight, strong, versatile. Molded under heat and pressure in matched metal dies to produce strong, uniform parts holding close tolerances and dimensions.

MFG can custom-mold complete bodies, doors, liners, fenders, moldings, panels — that are light in weight and impervious to rust and corrosion.

If transportation is your business, **MFG** belongs in your plans — for economy, strength and material superiority. Tell us your problem and we'll help solve it; or send coupon for free descriptive literature.

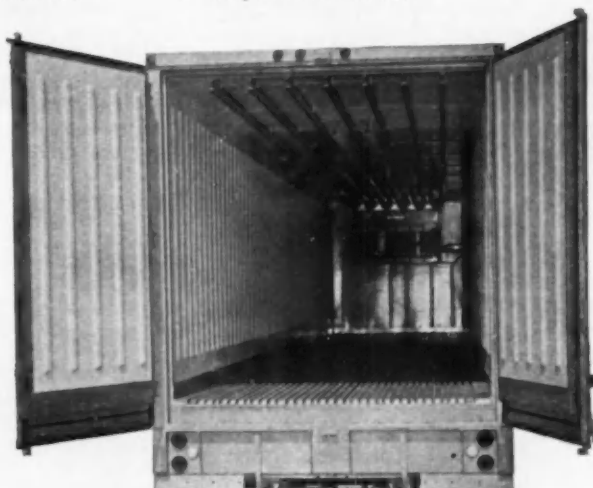


Complete White truck cab

**SEE BOOTH NO. 1523
SAE SHOW
JANUARY 8-12, 1962**



Corvette sports car body



Reefer liner panels



**MOLDED FIBER GLASS
COMPANIES**

4637 Benefit Avenue • Ashtabula, Ohio

**Molded Fiber Glass Companies
4637 Benefit Avenue, Ashtabula, Ohio**

Please send literature on Molded Fiber Glass
in automobiles.

I am particularly interested in _____

Name _____

Company _____

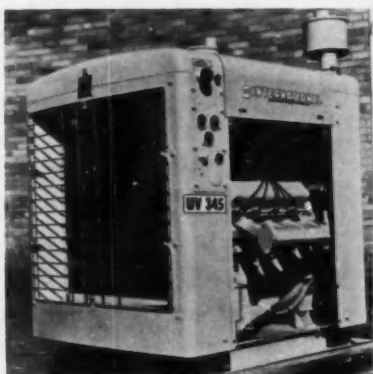
Street _____

City _____ Zone _____ State _____



for construction fleets

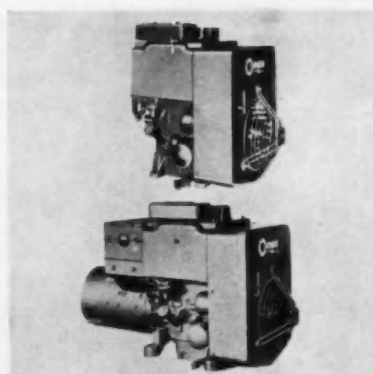
Fold out free reply cards inside back cover. Use them to find out more about all the items that interest you



International gasoline engine for construction and off-highway applications is the UV-345 rated 158 hp at 3000 rpm. Displacement is 345 cu in. Weight is 740 lb. Compression ratio is 8.05: The V-8 is 39½ in. high and 33¼ in. long. For more details, circle 300 on card



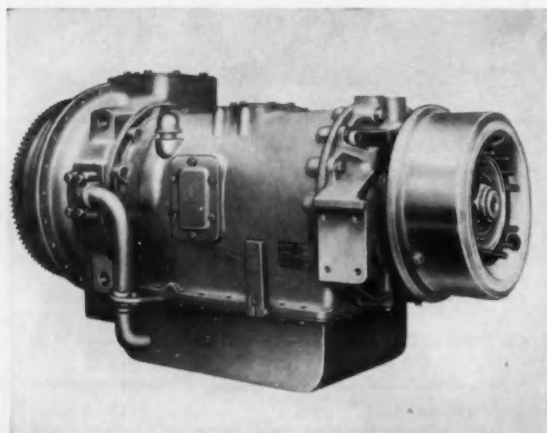
Earthmover tires with 50 per cent deeper lugs than conventional types are now available from Seiberling Rubber Co., Akron, Ohio. This "deep tread" model is the newest tire in the Power Lug line, has 70 lb of extra rubber in the tread. For more details, circle 301 on card



Generator sets in an all-new "J" line made by Onan Div. of Studebaker-Packard come in sizes from 3 to 15 kilowatts. Top engine is the J-60, 2-cylinder, OHV rated 21.6 hp at 2700 rpm. Lower unit is the 5JB-1R rated at 5 kw. For more details, circle 302 on card

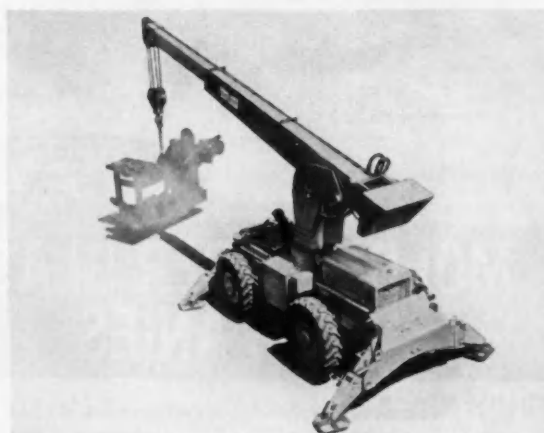
Newest Allison automatic for construction and off-highway equipment applications is the Model No. CLBT-4460. It's for use in the 200-300 hp range, will handle 700 lb ft of engine torque. It has 6 forward speeds with automatic direct lock-up.

For complete data, circle 400



25,000-lb capacity hydraulic crane called the Pettibone 25 Multikrane has a 360-deg rotating boom which can also be extended from 15 to 25 ft. Hydraulic clamshell is also available. Hercules G-339H gasoline engine is standard.

Circle 401 to get all the details



Can you FORECAST sleeve success



The cylinder sleeves or liners shown here appear to be identical. Actually they are vastly different. One will last far longer than the other.

If you picked the one on the left to last longer, you're correct. It meets the hardness requirements that Mack engineers find necessary for maximum life. This means the sleeve is hard enough to provide many thousands of miles of trouble-free life . . . that piston ring and piston scuffing will be minimized. This sleeve is a genuine Mack part.

But the "will-fit" sleeve on the right could not even be measured on the same hardness scale as the Mack liner. It is too soft. Because it is softer . . . and because it is not impregnated with a surface lubricant as is the Mack sleeve . . . this liner will wear more rapidly. It is much

more prone to ring and piston scuffing and premature failure. And the "will-fit" sleeve's life expectancy is naturally short.

Unless you can afford the expense of extensive laboratory and field tests, it's impossible to forecast the success or failure of a replacement part. You are far better off specifying genuine Mack parts. Only then can you be sure of preserving the quality you invested in originally. Sometimes you are actually improving performance since Mack is consistently improving its parts—original and replacement alike.

When it comes to service, you should make the same comparison. Mack-trained mechanics can make a big difference, too. Mack Trucks, Inc., Plainfield, New Jersey. Mack Trucks of Canada, Ltd., Toronto, Ontario.

MACK FIRST NAME FOR **TRUCKS**



in fleet safety

Fold out free reply cards inside back cover. Use them to find out more about all the items that interest you

Small fleets can now train drivers on 'co-op' basis

DRIVERS ARE THE KEY to safe driving!

Drivers Safety Service (DSS), New York City, had this fact in mind while setting up a new intra-fleet cooperative plan to provide effective safety programs for small fleets.

While large fleets are able to maintain their own self-contained safe driving programs, smaller operations can rarely afford the expense involved.

Through DSS, small fleets can now

join together, pool their resources and build a fleet safety program on a cooperative basis. As a group, they'll receive assistance from specially-trained DSS safety consultants who service the member fleets.

Each fleet's accident statistics are first analyzed and diagnosed as to cause. Then a plan for treatment and prevention is devised and put into effect. The DSS program consists of six basic phases, as follow:

- A continuing low-pressure safe-

ty program is conducted in all fleets under supervision of DSS consultants.

- Employee driving records are carefully analyzed.

- Drivers are thoroughly screened, interviewed and tested. Test results are measured against standard requirements for safe, efficient driving. Those with limitations or deficiencies are processed through a safe driving clinic and, if needed, an accident prevention clinic. Equipment for tests and clinics is portable or trailer-mounted for transport to terminals of member fleets. In some cases, the accident prevention clinic may be set up at a central point convenient to fleets in the area.

- After testing and processing, each driver receives an explanation of his evaluation so he'll realize his need for further training, should it be required.

- Driver discussion groups are conducted by trained leaders who employ both visual aids (film strips, transparencies, etc.) and their knowledge of human behavior to encourage drivers to discuss driving habits and attitudes. This helps the men to reach correct conclusions about their own habits and correct them as needed.

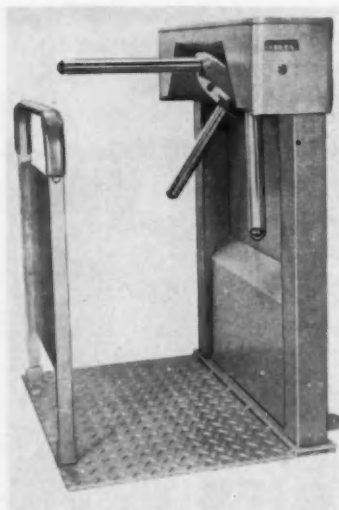
- Incentive safety awards programs are established to give drivers a goal to shoot at as well as the fun and interest of competition.

Throughout all phases of the program, consultants are available to assist the fleet operator with specific problems and to offer suggestions for constant strengthening of year-round driver safety.

To learn more about the DSS fleet safety program "co-op," circle 403 on the reply card



in bus equipment



Compact bus turnstile is offered in stationary and portable models by Johnson Fare Box Co., Chicago. Portable unit has an attached guard rail and non-skid floor plate. Both provide ample space for one person to pass through, but not enough for "doubling up." Hydraulic shock absorbers and self-positioning arms prevent spinning and skipping. A tamperproof register, in key-locked housing, assures exact count up to 999,999, adjusts to register on either entrance or exit. An adjustable foot-control bar, for push-to-lock or push-to-open operation, is extra long to provide more freedom of movement for attendant.

Circle 402 on card for details

Look at Plymouth now!



Plymouth fleet cars give a lift that never lets you down!

Yessir, these dazzling, full-size '62 Plymouths are built to keep a man on the move all day long—and get him where he wants to go without letdown. Handsome, smartly styled interiors. Big, easy-to-read instrument dials. Comfortable, man-size cushions. Plus improved Torsion-Aire suspension, better shock absorbers, and new center-of-balance design, all of which combine to make for steady steering and smooth stability.

With Plymouth, half the fun is in the driving. The other half is in the *saving*. Economy, reliability, engineering excellence—Plymouth's got 'em all. Up to 7% better gas mileage than last year, for example! A new 32,000-mile lube cycle on major chassis points. Oil changes only half as often as last year. New self-adjusting brakes. Strong, sturdy single-unit construction and new galvanized sills. And as if that weren't enough, even Plymouth's

battery-saving alternator has been improved! No wonder '62 Plymouth's the answer to a fleet owner's prayer! Call your Plymouth dealer now. See the beautiful difference in the low-price field soon!

'62 Plymouth Puts Economy First

Up to 7% better gas mileage than last year • New full-unit construction for long life and low maintenance • New galvanized sills in addition to a 13-step dip-or-spray process for lasting body protection • New 32,000-mile lubrication cycle on major chassis points • New self-adjusting brakes • Oil changes half as often as before

THE NEW PLYMOUTH

Quality-engineered by Chrysler Corporation



in trucks



Road and rail crane carrier just introduced by Crane Carrier Corp., Tulsa, Okla., features hydraulic operation. It's designated the Model No. 1566. Hydraulically-operated rail guide wheels on the dual-purpose carrier are lowered to permit it to run on railroad tracks. With rail wheels retracted, carrier may be driven on highways or even into remote unpaved areas to transport maintenance crews and equipment to and from the jobsite.

To find out more about it, circle 431 on card



New half-ton, walk-in type delivery unit is the "Jeep" Fleetvan just announced by Willys Motors, Toledo, Ohio. For general light pickup and delivery operation, the vehicle is a larger version of the Fleetvan model previously built for the U. S. Post Office Dept. The new commercial unit has a 170-cu ft cargo area. Overall length of 154 in. on compact 81-in. wheelbase makes it highly maneuverable in city traffic. It's powered by a 4-cyl F-head engine.

For complete information, circle 432 on card



in fleet cars

Dodge taxis for 1962 are offered in compact Lancer (shown) and full-size Dart models. Both carry five passengers when meter is dash-mounted to permit a full bench in front. Standard powerplant in both is a 170-cu in., 101-hp, OHV Slant Six, with two larger engines optional. Standard transmission is a 3-speed, heavy-duty manual with new concentric mechanism for easier, faster shifting. Optional is a 3-speed, push-button automatic. Alternators are also standard.

Circle 433 to get full details from Dodge



Electrically-powered commercial vehicle called the Stuart has just been announced by Stuart Motors, Kalamazoo, Mich. It runs on lead-acid batteries that recharge from most 110-volt AC outlets, goes about 35 miles on a charge. Body and floor are fiberglass with plastic-finished interior. Car is 115 in. long and 64 in. wide. With $\frac{1}{4}$ -ton load capacity, it's designed for utility meter reading, mail and light goods delivery or short-run rental service.

For details on the new electric car, circle 434



10 **USS** Cor-Ten Steel trailers haul 2,478,000 cubic yards of coal 11,550,000 miles in seven years

Seven years ago, the Coal Transportation Company, Atlanta, Georgia, bought 10 bottom-dump, 30-cubic-yard trailer units built of USS COR-TEN High-Strength Low-Alloy Steel. Since then, each unit has averaged some 35,400 cubic yards of coal annually. The trailers are currently on their third set of tractors —having outlasted two previous sets.

Mr. Hubert Chatham, manager of the company, says, "If anyone had told me seven years ago that these COR-TEN trailers would deliver such terrific service, I wouldn't have believed it. Only two or three have required a few repairs on the sides and hoppers. This has been done easily by welding."

The trailers were built by the Marion Metal Products Company, Marion, Ohio. USS COR-TEN Steel's 50% greater strength and higher resistance to atmospheric corrosion and abrasion permitted light sections to be used. The trailer units weigh only 10,300 pounds empty. More payload can be hauled, and operating and maintenance costs are very low.

Reasonable first cost. 16-gage USS COR-TEN Steel was used in the sides, 12-gage in the ends and floors, 10-gage in the hopper doors, and cold-formed 10-gage in the trailer's frame members. If carbon steel had been used, these sections would have been heavier. Thus, COR-TEN gave reasonable first cost, and quickly paid for itself in lower maintenance and longer service. You can't beat USS COR-TEN Steel for handling corrosive and abrasive loads and absorbing the pounding of rough roads!

For more information about USS COR-TEN or other brands of USS High Strength Steel, write to United States Steel, 525 William Penn Place, Pittsburgh 30, Pennsylvania. USS and COR-TEN are registered trademarks

United States Steel Corporation • Columbia-Geneva Steel Division • Tennessee Coal and Iron Division • United States Steel Supply Division • United States Steel Export Company



United States Steel



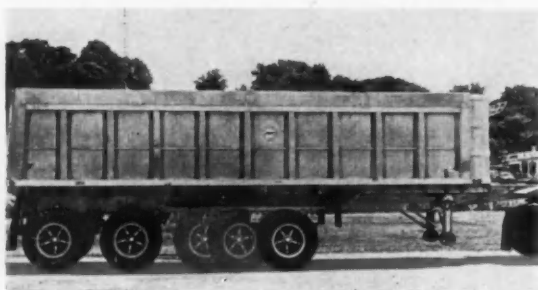
This mark tells you a product
is made of modern, dependable Steel.

Shown is one of the units in this 10-truck fleet that makes four, 144-mile round trips per day, 6 days a week, hauling 2" and under coal.



in trailers

Fold out free reply cards inside back cover. Use them to find out more about all the items that interest you

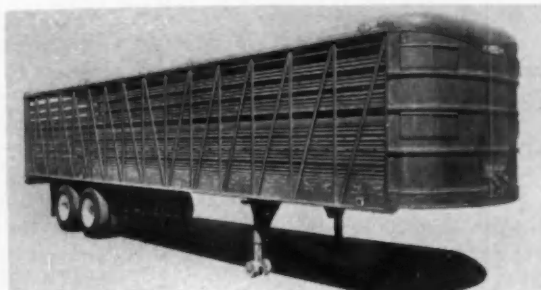


Sliding-axle dump trailer developed by Ravens-Metal Products, Parkersburg, W. Va., is designed to increase legal state-to-state payloads. On either tandem or tri-axle trailers, the sliding axle principle permits front axle to be moved to any position with a range of 9 ft, 2 in. Air pressure applied through an airbag system produces any desired axle loading at that point. Payload capacity is up to 8250 lb greater.

For more information, circle 404 on card

Constant-temperature tank trailer hauls three bulk commodities at once and maintains correct temperature for each. A combination heating-cooling system provides automatic and independent temperature regulation (ranging from 0 to 150 deg F) in each of the three compartments. The 40-ft-long, all aluminum trailer is fiberglass insulated, has an easy-to-clean plastic interior. Manufacturer is the Heil Co., Milwaukee, Wis.

To find out more about it, circle 406

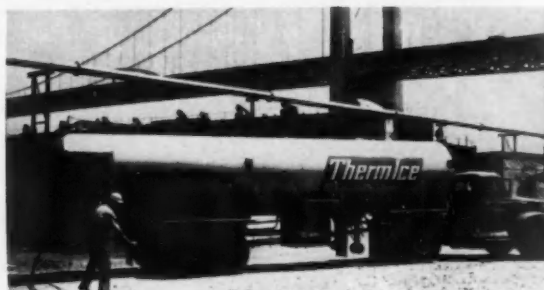


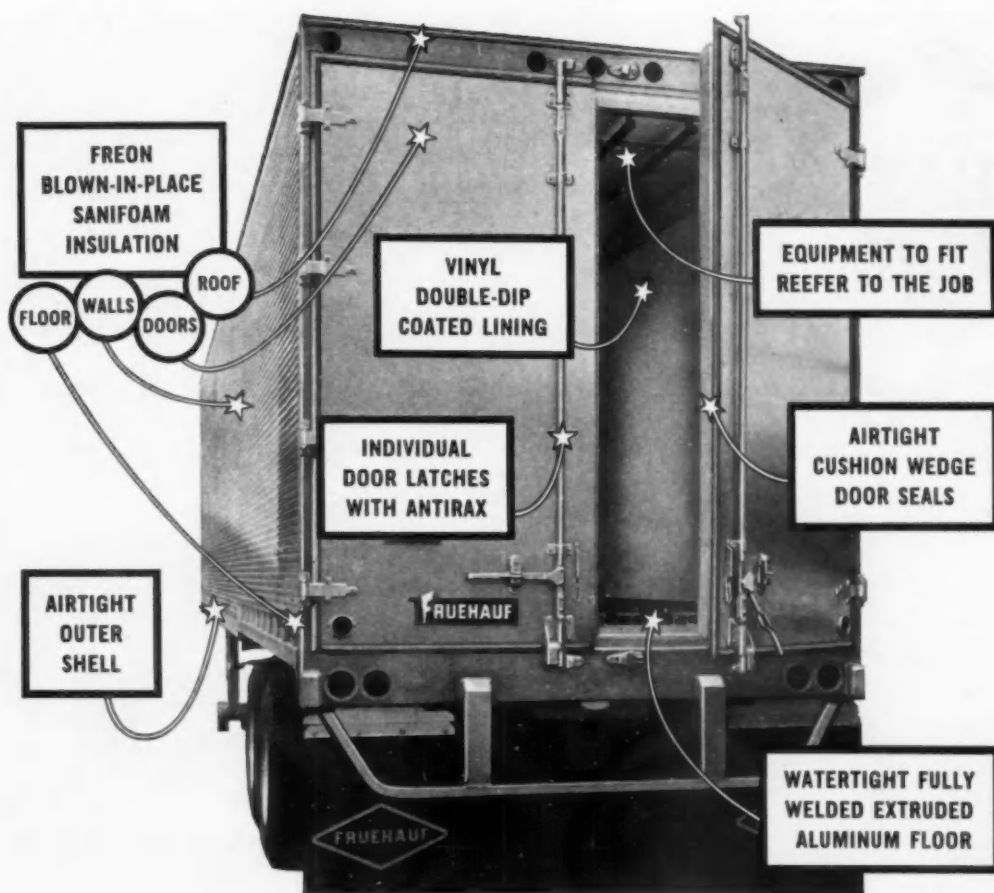
Livestock trailers with standard design features provide a "family" resemblance in all units in the new 92V series produced by Wilson Trailer Co., Sioux City, Iowa. Features include diagonal stake arrangement, improved lighting system and service box with built-in circuit breaker, semi-pneumatic rubber dock bumpers at rear corners, new header and "Stor-deck" rail for more storage space, and squared-off center deck rail to prevent bruising of cattle.

To get further details, circle 405

Liquid carbon dioxide tank trailer from Fruehauf Trailer Co., Detroit, is 34 ft long with 3611-gal, single steel cargo compartment. An adjustable upper coupler combined with a Fruehauf sliding coupler on tractor permit flexible interstate operation. Tank has an independent piping and pumping system for self-loading and unloading. A self-contained generator provides electric power to drive a pump in the rear compartment.

Circle 407 on card to obtain further information





EXCLUSIVE FRUEHAUF FEATURES MAKE MODEL F REEFER YOUR BEST BUY!

This Fully Sealed Reefer Reaches New High in Insulated Trailer Efficiency

Ever since Fruehauf produced the first successful fully-foamed Reefer, this blown-in-place Sanifoam insulation—lightweight, resilient, tough, and permanent—has made Fruehauf Reefers the No. 1 choice of the industry.

Note that floor, walls, doors and roof in the popular Model F are *all* Sanifoam-protected. This insulation force-flows into even the smallest crack, crevice or equipment-mounting aperture. It leaves no entry for unwanted heat. High impact plastic spacer construction and vinyl plastic dip-coating

on linings and floor pan, plus self-sealing floor drains and cushion-wedge door seals, make for the highest efficiency in temperature maintenance.

The floor is fully-welded—a Fruehauf exclusive—providing complete protection against leakage and odors.

Fruehauf-engineered reefer equipment such as meat hook loops, meat rails, air ducts, and vent doors give you the ultimate in convenience—a functionally complete insulated Trailer. For full details, fill out and mail the attached coupon.

"ENGINEERED TRANSPORTATION"—The Key to Transportation Savings



FRUEHAUF TRAILER COMPANY • 10940 Harper Avenue • Detroit 32, Michigan

Please send me complete information, without obligation, on the high-efficiency Fruehauf Model F Reefer.

NAME _____ TITLE _____

COMPANY _____ (please print)

ADDRESS _____

CITY _____ ZONE _____ STATE _____



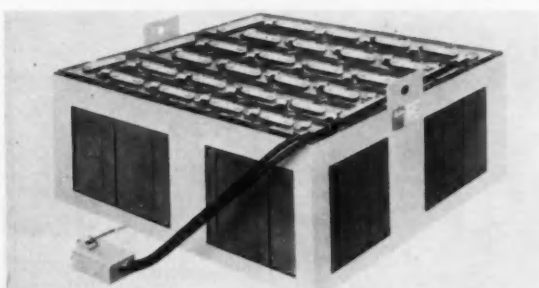
in cargo handling

Fold out free reply cards inside back cover. Use them to find out more about all the items that interest you



Flexible, high-speed loading system installs in any truck or trailer without vehicle modification. Sections of track are connected by interlocking pins, can be moved from one truck to another in minutes. System consists of roller bearing track in truck and on dock, 18 pallets of 4000-lb capacity each, and a transfer device for moving load from dock to truck. Locking chocks prevent load shifting in transit. It's made by Lockheed-Georgia Co., Atlanta, Ga.

For complete details, circle 427 on reply card

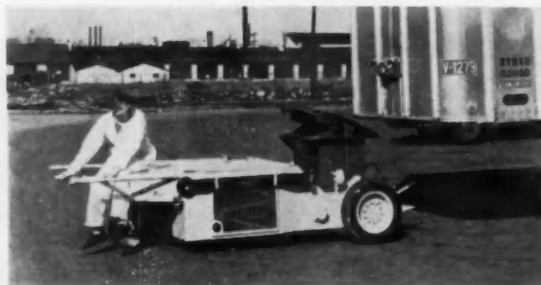


Nickel-iron alkaline storage batteries for materials handling equipment have increased capacity to permit most forklift trucks to handle heavier loads for longer periods with less frequent battery changes. Exide Industrial Marketing Div., Philadelphia, guarantees the new Type E batteries to last the entire life of low-lift electric hand trucks, providing they are maintained as prescribed by maker. Five sizes are offered for trucks with up to 8000-lb lifting capacity.

For further battery details, circle 428 on card

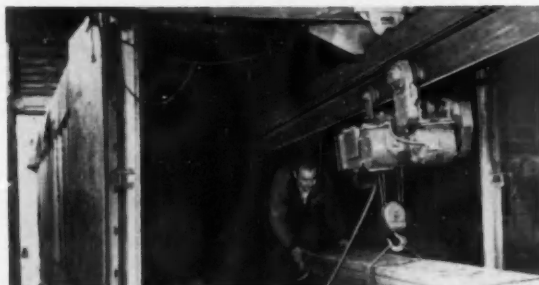
Self-powered trailer-handling dolly from Consolidated Diesel Electric Corp., Stamford, Conn., is called the Condec spotter. It handles trailers in yards, piggyback loading operations, and limited space applications. The 3-wheeled dolly has two independently driven wheels and a free-wheeling caster. With the fifth wheel between driven wheels, spotter can be turned without moving trailer. Dolly's fifth wheel raises hydraulically to lift trailer.

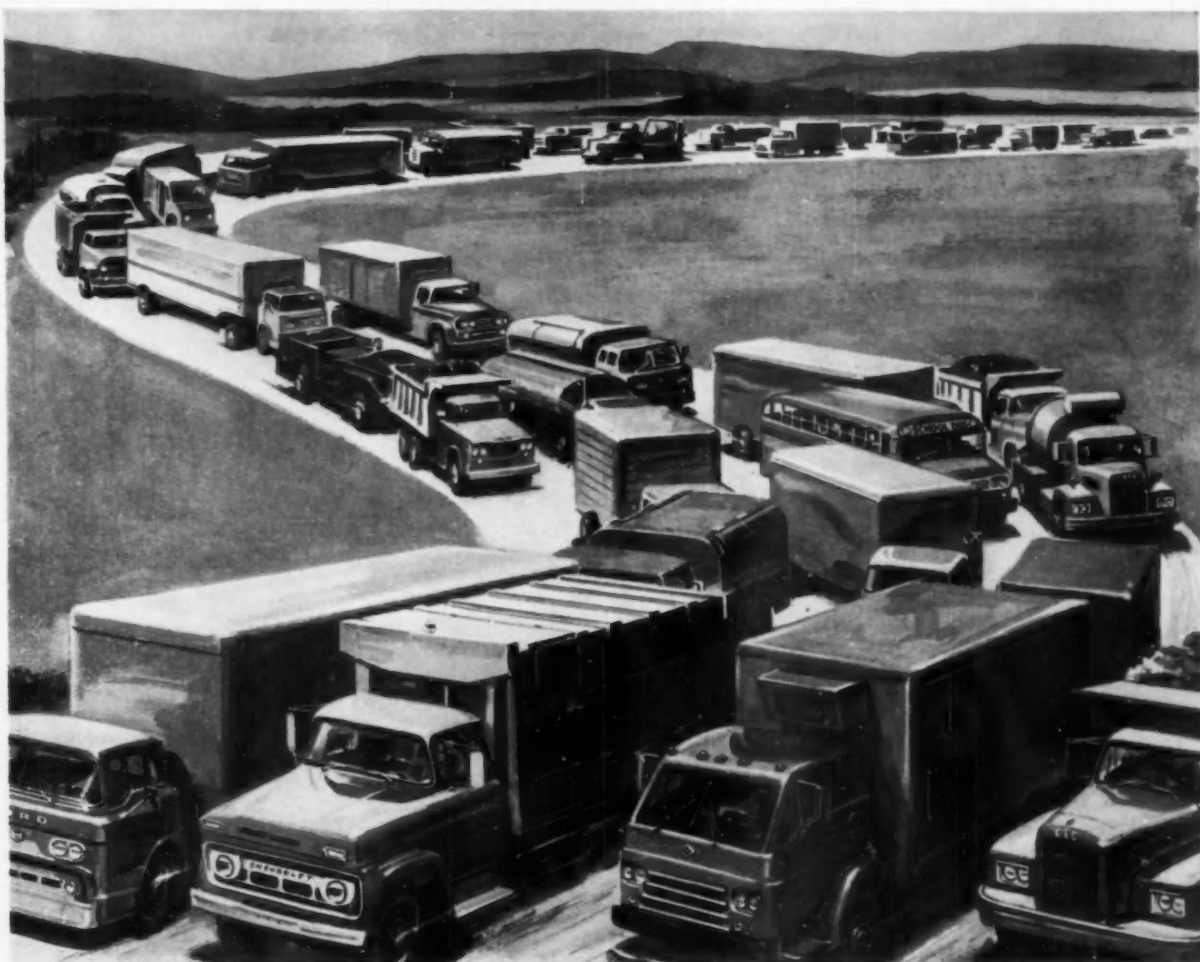
Circle 429 for more information



'One-Man Loader' is a system for loading any cargo (even lumber, pipe, etc.) directly into trucks. An overhead monorail in terminal or warehouse conveys a swinging boom, with 14-ft projection, to the loading dock. Boom picks up load and puts it in truck by means of cable hoist with motor-driven trolley. Woven-steel or nylon slings are used to support bundles or boxes. M-H Standard Corp., Jersey City, N. J., makes systems to suit space requirements.

For full details on the loader, circle 430





WHY THE GROWING SHIFT TO FULLY AUTOMATIC TRUCK TRANSMISSIONS?

Performance is the answer.

For instance, engines last 33½% longer, brake linings last 50% longer, trip time is cut an average of 18%.

Driver recruiting and training expenses are sharply cut, axles and drive-lines run longer, engine-disconnect clutch repairs are eliminated, and gas mileage is improved for many truckers.

Proof? Nicholson Concrete Co. of Toledo gets two to three new customers each year with its automatics. ... Fix Materials Co. in St. Louis saves 10 minutes every hour ... 3 trucks do the work of 4 for New Jersey Silica Sand. ... Stout Construction Co. in West Virginia saves \$1,348 a year on just one truck.

Why not get the percentages going for you, too? Get an Allison fully automatic transmission in your next truck. Call your dealer today or mail the coupon for more information.

Allison Division of General Motors
Dept. CCJ-12, Indianapolis 6, Indiana

Please send me the 12-page color brochure describing
Allison Fully Automatic Truck Transmission.

Name

Title

Company

Street Address

City Zone State

Allison Fully Automatic Truck Transmissions are now available in:



POWERMATIC



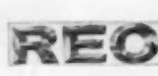
ALLISON AUTOMATIC



TORQMATIC



TRANSMATIC



REOMATIC





known
by the
companies
it keeps
moving



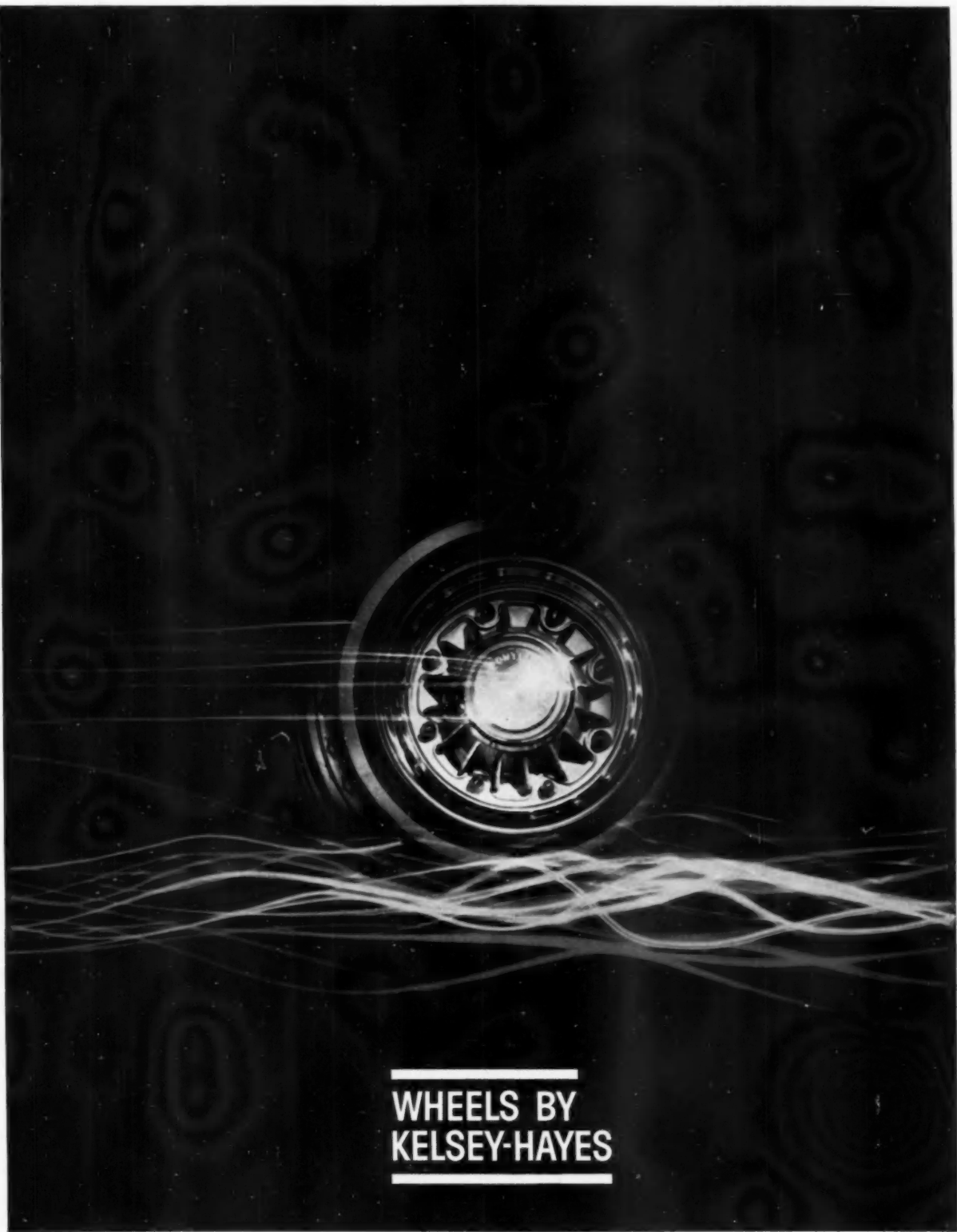
Thousands of leading American companies keep their investment at a minimum with a 'Jeep' fleet. Great versatility and low initial cost give you the most versatile vehicle you can possibly get for your money! Traditionally rugged 'Jeep' construction keeps maintenance costs low and the resale value high. Get in touch with us today for complete information! Write to: Robert J. Kreusser, Fleet Sales Manager, Willys Motors, Inc., Toledo 1, Ohio.

Jeep
VEHICLES



'JEEP' FLEETS—FROM THE WORLD'S LARGEST LINE OF 4-WHEEL DRIVE VEHICLES

Willys Motors, Inc., Toledo 1, Ohio. One of the growing Kaiser Industries.



WHEELS BY KELSEY-HAYES

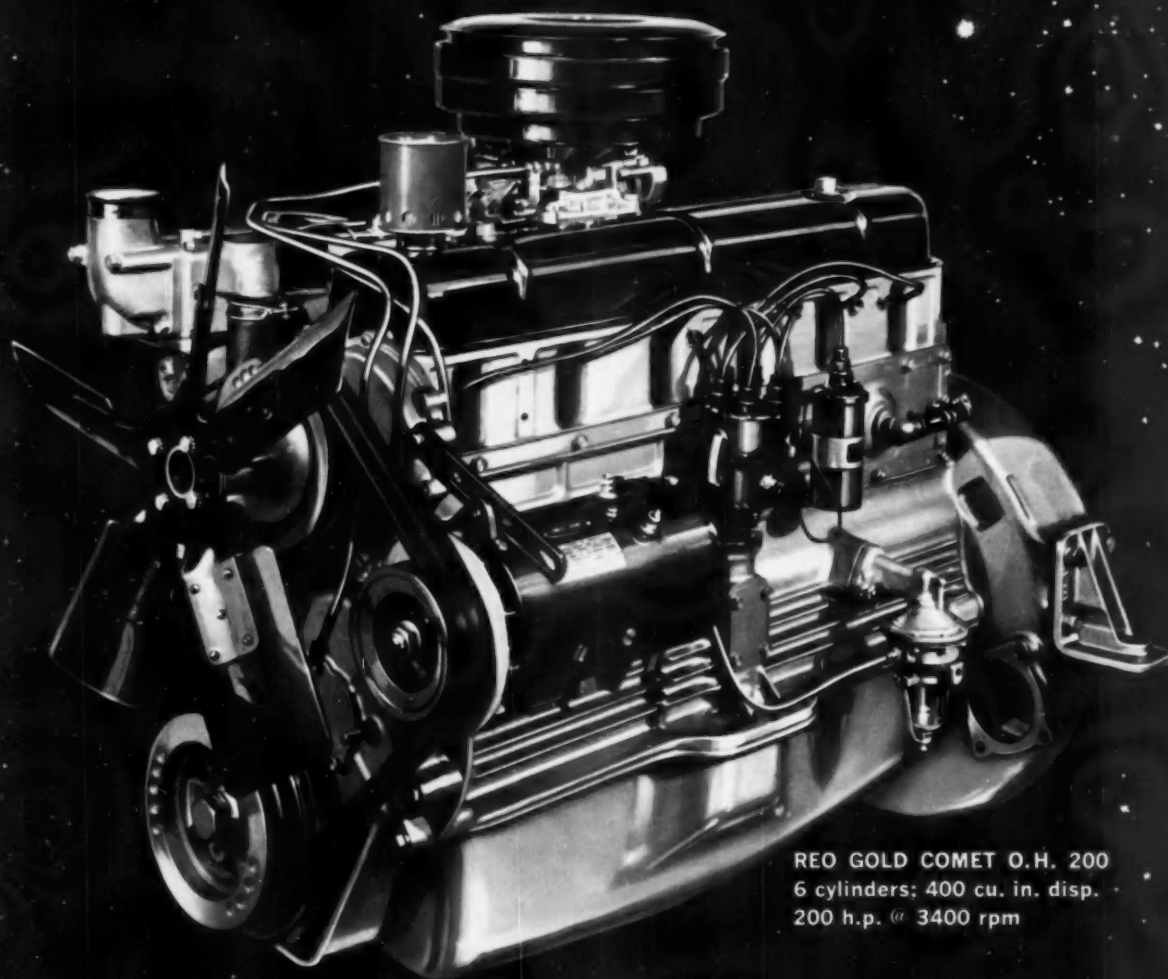
A great advancement in automotive wheel and brake design is the integral cast aluminum hub and drum by Kelsey-Hayes. Braking surface is provided by a special iron liner metallurgically bonded in place. Hub and drum, cast as an integral unit, provides for rapid dissipation of heat. Exposed to the air-stream through the specially designed steel wheel, its ribbed aluminum structure affords maximum cooling for uniform, fade-free brake performance and greatly extended lining life. Kelsey-Hayes Company, Romulus, Michigan.



**KELSEY
HAYES
COMPANY**

World's largest producer of automotive wheels, hubs and drums



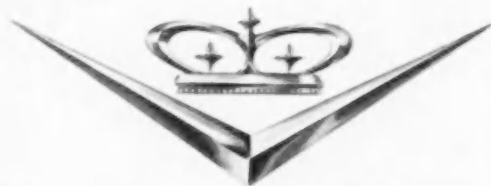


REO GOLD COMET O.H. 200
6 cylinders; 400 cu. in. disp.
200 h.p. @ 3400 rpm

REO

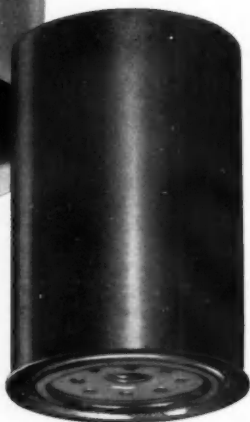
***Announces the first all new
heavy duty 200 h.p., six cylinder
truck engine introduced in years!***

REO after 3 years of intensive research and development—now brings you the economy and simplicity of a six cylinder engine with the power you usually expect only in a V-8 engine. ***It's a fact.*** Proved in over 36,000 hours of engine dynamometer tests and over a million miles of road tests! ***Advanced design*** makes the O.H. 200 far more efficient than ordinary sixes. Gives it a big edge in power and performance. ***New Gold Comet*** features give it a big edge in endurance, too. For example: a new and more efficient water distribution system; new and heavier crankshaft with seven larger main bearings; new chronicate exhaust valves—and much, much more. Get all the details on the Reo that's right for your job—powered with the ***new O.H. 200!*** It can mean money in your pocket!



Gold Standard of Values

REO MOTOR TRUCK DIVISION • THE WHITE MOTOR COMPANY, LANSING 20, MICHIGAN



ONE-STOP SOURCE FOR HEAVY-DUTY ENGINE PARTS

Need heavy-duty engine parts? Automotive engine parts? Filters? If your requirements call for the best of these, if you need them fast and need them right . . . turn to the Gould-National Engine Parts Division.

Here is a one-stop source of supply for piston rings; cast iron and aluminum-alloy pistons; piston pins; sleeves; sleeve assemblies; valves; valve train parts; oil, air and fuel filters; and other specialized engine parts.

You can get individual parts to meet your exact requirements, or packaged Superior-Arrowhead "matched and compatible" sleeve assemblies and Pedrick Precisioneered® piston ring sets.

Complete line of Superior-Arrowhead foreign car engine parts also available.

For more information on these quality products write the nation's largest basic manufacturer of heavy-duty and specialized engine parts . . .



Pedrick®



ENGINE PARTS DIVISION

GOULD-NATIONAL BATTERIES, INC.

St. Paul 1, Minnesota

Superior-Arrowhead is a trademark of Gould-National Batteries, Inc.

FRUEHAUF'S RUGGED, PROFIT-SAVING TRAILERS LICK TOUGHEST CONSTRUCTION JOBS!

YOU'RE sure of dependable, profit-protecting transportation on the toughest construction or road-building contracts when you've got Fruehauf Trailers working for you. The leader in the field, Fruehauf designs and produces the world's most *complete* line of Truck-Trailers for the construction and road-building industries. There's a Fruehauf Trailer for every haulage need, every model engineered to be a star performer under the toughest load and road conditions. If you're in the construction or road-building business and are not already using Fruehauf Trailers, you'll find it profitable to get the full Fruehauf story. The coupon below will bring it to you promptly.



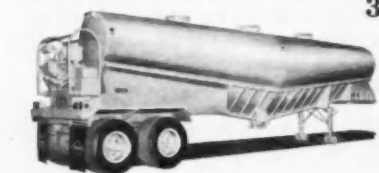
All-New Fruehauf Dump Trailers, steel or aluminum, frameless or frame-type, meet practically any maximum legal payload requirement. Bodies available in wide range of capacities . . . 14 to 36 cubic yards.



1



2



3



4

- 1 Well-named the "Workhorse," this Fruehauf Platform Trailer is ideal for hauling lumber, bagged cement, brick and other materials needed in construction and road-building.
- 2 Designed to transport and discharge a wide range of granular and powdered materials, Fruehauf's Hopper Pressure Tank does not have to be positioned level for unloading.
- 3 Capable of unloading 120 barrels of cement in 36 minutes at 14 pounds pressure, this Pneumatic "Airslide" Pressure Tank has bolted underconstruction, allowing maximum relocation for load distribution purposes.
- 4 Fruehauf Carryalls simplify the problem of moving cranes, shovels, rollers and other heavy and cumbersome construction equipment to and from the project sites.

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FRUEHAUF TRAILER COMPANY, 10940 Harper Avenue—Detroit 32, Michigan

Please furnish me with full details on . . .

- ☐ Dump Trailers
☐ Platform Trailers
☐ Pressure Hopper Dumps
☐ Pneumatic "Airslide" Pressure Tanks
☐ Carryalls
☐ _____ Trailers

Name _____ Title _____
 (please print)

Company _____

Address _____

City _____ Zone _____ State _____



in vehicle accessories

Fold out free reply cards inside back cover. Use them to find out more about all the items that interest you



Oil condition indicator is an engine-mounted meter that automatically gives reading while engine is stopped or running. Gerin Corp., Avon, N. J., makes it for use on gasoline or diesel engines. For more details, circle 309 on card



Dual-view safety mirror combines both close-up and wide-angle vision in one unit. The Duplex-61-Swiveline mirror has just been introduced by Porto-Clinic Instruments, New York City. For more details, circle 310 on card

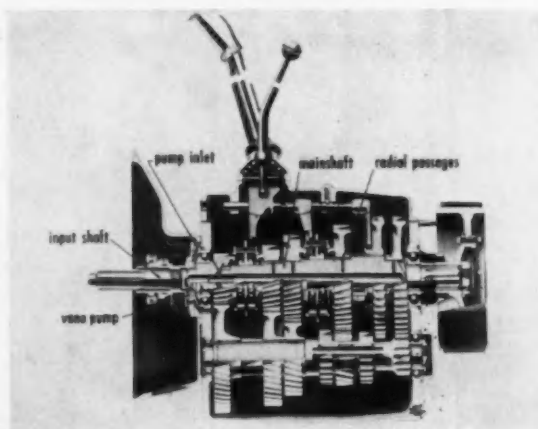


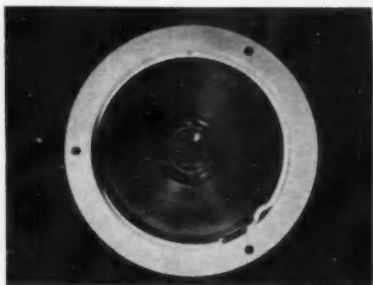
Vehicle burglar alarm from Ever-Guard Alarm Systems, New York City, is called On-Guard. With control switch set, any attempt to open doors, hood or trunk causes a series of sharp horn blasts. For more details, circle 311 on card

Snow plow designed for 4-wheel drive trucks has just been introduced by Meyer Products, Cleveland, Ohio. The Model No. ST-90 has a 90-in.-wide moldboard to clear a 75-in. path in full-angle position. Safety spring trip action protects plow and vehicle. For complete details, circle 435 on card

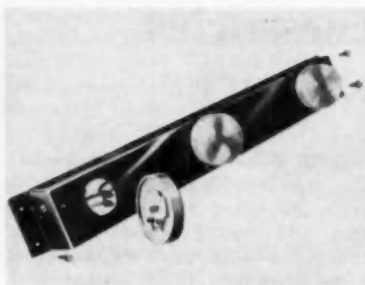


Five-speed, heavy-duty truck transmission features a new pressure system for positive mainshaft lubrication by means of a single pump with no gears, springs or valves. The 400V series from Clark Equipment Co., Jackson, Mich., comes in six models. To obtain further information, circle 436





Stop, tail or directional light for truck or trailer replacement use is the Lifetype Lite from Hogart Mfg. Co., Wyandotte, Mich. White vinyl coating inside and out gives long life, brighter light. For more details, circle 312 on card



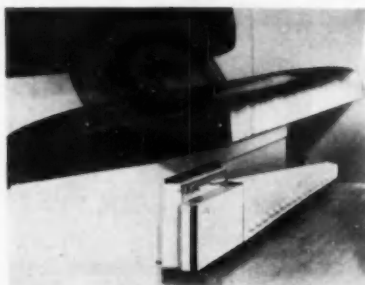
Bar or identification lamp from Truck-Lite Co., Jamestown, N. Y., has sealed bulb and lens units on 6- or 9-in. centers. In case of damage, one light is replaced individually instead of entire assembly. For more details, circle 313 on card



Flashing, revolving light for emergency use on vehicle roof, deck or dash has either permanent or magnetic mounting base. R. E. Dietz Co., Syracuse, N. Y., calls the compact unit the Model No. 261 Junior. For more details, circle 314 on card



Electric engine heaters in a new Zero Start line from Phillips Mfg. Co., Minneapolis, Minn., are installed directly through the freeze-plug hole. Unit is held in place by an expansion-fit washer. For more details, circle 315 on card



Crew-cab heater for underseat installation is thermostatically controlled. It operates on propane gas, has safety shutoff in case of battery or power failure. It's from Morrison-Pelsue Co. For more details, circle 316 on card

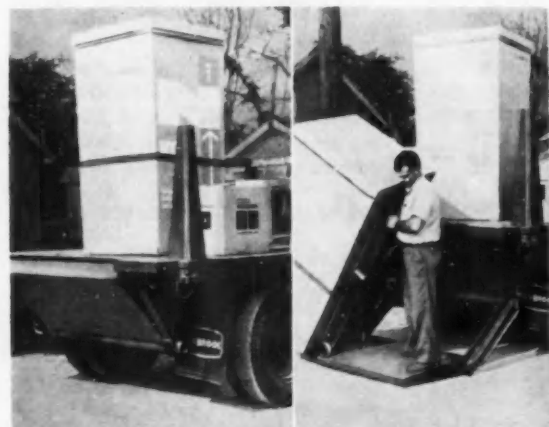


Dual-tire traction plates fit over tire and bolt to a permanently installed connector in wheel spacer. They're made by Tractioneer Co., Chicago, for on-or-off-road use in snow, ice or mud. For more details, circle 317 on card

THERE'S MORE

High-capacity hydraulic tailgate added to the Daybrook line lifts and lowers 1800-lb loads, then folds back and locks under rear of truck frame when not in use. It's the Series T-18 power gate from Young Spring & Wire Corp.

For more complete information, circle 437



Two treadle application valves for trucks are new air control devices (WM-326 and WM-353) from Williams Power Brake Equipment Co., Portland, Ore. They feature smooth operation with full tank pressure admitted at end of pedal travel.

Circle 438 on card for more details from maker





in vehicle accessories

Continued from Page 131

Front end rebuild kit just introduced by International Harvester Co., Chicago, can be used to make almost any make or model of heavy-duty, diesel-powered truck look as modern as IHC's D- and DB-400 series. Kits are available for trucks of 30,000 lb GVW and 68,000 lb GCW and up, for conventional or COE

chassis, four- or six-wheel models. The new D-400 kit includes cab with seats, fiberglass tilt-away one-piece hood and fender assembly, frame, front axle with cast wheels, front brakes, fuel tank, clutch control, cooling system with shutters, electrical system with instruments, exhaust system, steering system, throttle con-

trols for diesel PT pump, and paint. Cab is 54 in. long with 114-in. BBC dimension.

For more details, circle 327 on card

Cast-steel spoke wheel for big single tires accommodates a demountable rim. Made by Gunitite Foundries, Rockford, Ill., it is lighter



in weight and lower in cost than standard duals and includes a new positive alignment feature not previously available.

For more details, circle 328 on card

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**Shrink
Downtime
and
Repair
Costs**



KENDALL F-L MOTOR OIL — Highly detergent-dispersant for heavy duty gasoline and diesel engines. Keeps engines clean and assures top performance in all fleet operations.

KENDALL SUPER-D MOTOR OIL — Series 3. A heavy duty lubricant for high output, supercharged diesel engines. Its detergent-dispersancy gives maximum engine cleanliness even when high sulfur content fuels are used.

Both are refined with advanced techniques to control harmful deposits and corrosion, inhibit rust and oxidation and lower oil consumption.

Ask your Kendall Distributor, or write
KENDALL REFINING COMPANY
BRADFORD, PENNA.
Lubrication Specialists since 1881

Tubeless tire valve line from Milton Mfg Co., Chicago, features snap-in type valves with an "All-Pressure" core to eliminate valve

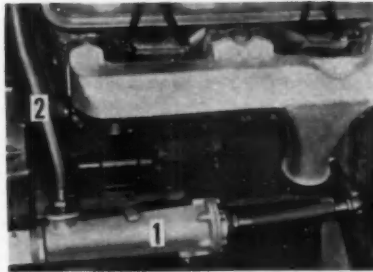


core set failures. The line provides full coverage for both .453- and 5/8-in. rim hole diameters with lengths ranging from 1 1/4 to 2 1/2 in. Each size is offered with either metal or plastic cap.

For more details, circle 329 on card

Electric engine heater for pre-warming truck, bus and automobile engines has just been announced by Edwin L. Wiegand Co., Pittsburgh, Pa. The Chromalox type

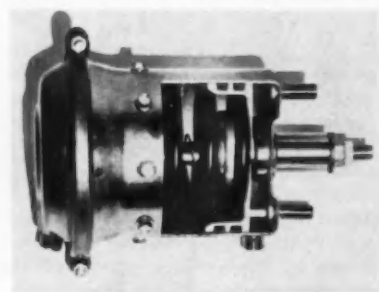
KH heater connects into the cooling system of any gasoline or diesel engine to force warm water by convection through the engine. An aluminum



heating chamber (1) comes with 3-ft cord and plug. Water from the radiator is piped through the chamber where it is warmed then forced up through the hose (2) and through the engine.

For more details, circle 330 on card

Safety air brake just announced by Maxibrake, Pasadena, Cal., is a new Maxibrake Type 30 with a 12-in. coil spring that near-



ly doubles its capacity. The automatic air release spring applied safety brake works automatically in event of any failure in air pressure. In use, it will hold 50,000 lb GVW on a 20 per cent grade. In emergency application, will stop the same vehicle with 95 ft on level ground from 20 mph.

For more details, circle 331 on card

Two-way radio transceiver for easy installation in any vehicle has just been announced by Cadre Industries Corp., Endicott, N. Y. Called the Cadre "500," the compact, 5-watt unit is for citizens band operation in a range of 10 to 15 miles over land.

For more details, circle 332 on card

Load binder is the new ratchet-lever, link-chain Model No. BA-100 just added to the

Coffing line from Duff-Norton Co., Pittsburgh, Pa. The powerful single-chain load binder combines fast action with great holding power and weighs just 19½ lb. Loads can be supported on one or both pawls and can't slip.

For more details, circle 333 on card

Gas-line de-icer and dryer added to the Prestone line is a fuel system additive that prevents freeze-up and carburetor icing. Offered by

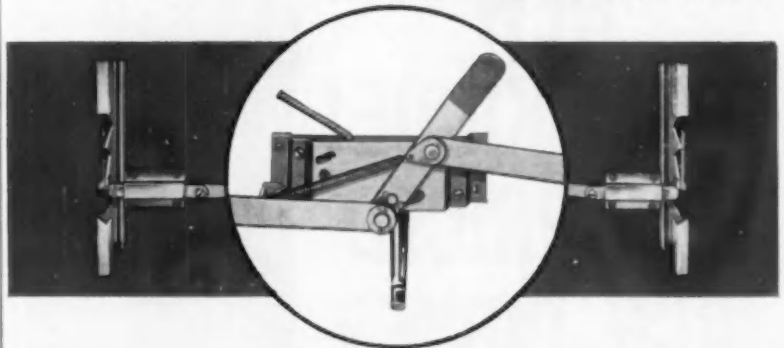
Union Carbide Corp., New York City, it also keeps fuel system clean and prevents stalling.

For more details, circle 334 on card

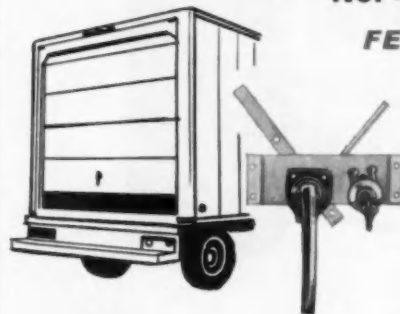
Metal primer coating repairs rusted surfaces and prevents rusting of new metals. With new Zincilate RCP (rust converting primer), rust is converted into an iron phosphate coating that severs contact between rust and metal. The

(TURN TO NEXT PAGE, PLEASE)

Made to "ROLL UP" AN ENVIABLE SERVICE RECORD ON ANY OVERHEAD DOOR



EBERHARD'S New Overhead Door Lock No. 42-5607



FEATURES

- Ruggedly constructed for heavy duty.
- Automatic locking feature frees operator's hands.
- Tapered Bolt pulls door uptight.
- Convenient, inside, door-lock release lever.
- Cast, reinforcing lugs prevent hole elongation in track.

In response to increasing demands for the "Ultimate" in an overhead, roll-up door lock we offer this new Model No. 42-5607 with a host of exclusive design and operational advantages. It lends itself to a variety of installations. Get all the facts.

**EBERHARD
MANUFACTURING
COMPANY**
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Division of The Eastern Company

*The most complete line
of truck body
hardware
available*

SAFETY

Continued from Page 73

hicles were unsafe in June, 17.1 per cent were unsafe in May. Over 2500 "units" (trailers, tractors, or trucks) were ruled off the road until repairs were made.

ICC-authorized carriers had the best records in both the Ohio and Pennsylvania checks. (Their rec-

ord was not particularly good—21.9 per cent of the vehicles checked in June and 19.5 per cent in May on the Ohio Turnpike had four or more defects.)

In both checks the private or exempt rigs fared worse. Official results of the Pennsylvania check have not been released. But in Ohio in June, 43 per cent of the exempt carriers' rigs and 38 per cent of the private carrier vehicles had four or more defects.

New safety service

National Tank Truck Carriers has a new safety poster service available to its members. Posters are mailed each week, often cover topics other than safety.

You can get more information on it from NTTTC, 1616 P St., N. W., Washington 6, D. C.

END

Please Resume Reading Page 75

NEW FROM KIDDE! LOW-PRICED HIGH-POWER EXTINGUISHER

I.C.C. APPROVED



\$11⁹⁵ RETAIL

14" HIGH

Now—thanks to the new I.C.C. and U.L.-approved Kidde Kompact, you can have high-power fire protection at a rock-bottom price! Lowest-priced 2½-pound dry chemical extinguisher on the market, the new Kidde Kompact packs as much fire-killing punch as extinguishers costing twice as much. And with a U.L. rating of 4:B, C for use on flammable liquid or electrical fires, the Kidde Kompact equals 8 1-qt. carbon tets! Mounts snugly, works simply—just lift handle and press lever. No recharging needed—just replace used cylinder with another . . . only \$3.95. For more information, contact your distributor or write Kidde today!

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in vehicle accessories

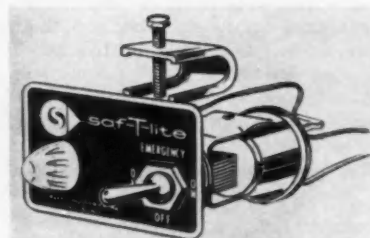
Continued from Page 133

clear substance is applied with spray or brush, requires no separate primer coat. It's made by Industrial Metal Protectives, Dayton, Ohio. For more details, circle 335 on card

AC power generator generates 110-volt AC power from auto or truck engines. It's ideal for operating portable construction equipment, maintenance equipment, power tools, radio equipment and emergency floodlights on the road or in the field. Equal in size to a standard generator, it mounts on engine block, is driven by the fan belt, crankshaft or DC generator pulleys. A dash-mounted panel contains on-off switch, voltmeter and throttle regulator. Called the CARon generator, it's offered by Gordon Enterprises, North Hollywood, Cal.

For more details, circle 336 on card

Stoplights convert to flashing safety lights with a new 3-way warning signal that operates with a dash-mounted pilot light. Called Saf-T-

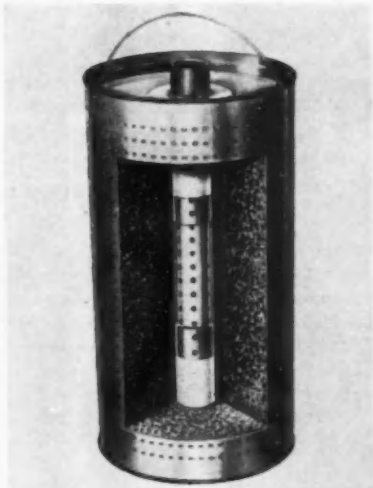


Lite, the unit has a built-in flasher and is wired to the stoplight switch. Slightest pressure on the brake pedal

causes stoplights to flash automatically. A flip-switch permits flashing operation while vehicle is parked. Kleff Industries, New York City, makes the device for simple installation in any vehicle without need for tools or drilling of holes.

For more details, circle 339 on card

New oil filters
are specially designed by Wix Corp., Gastonia, N. C., for diesel engine ap-



plication. They provide visibly clean oil, maintain high flow rate and extend filtration life cycle.

Want to know more? Circle 340

Automatic seat belt retractor from Better Part Specialties, Los Angeles, Cal., is simple to install. It requires no change in existing seat



belt anchors, seat itself, or other hardware. Tandem springs are housed in a 15-in.-long plastic case which is placed lengthwise under the seat near the door side. Buckle end of belt is passed through the device, according to instructions, then through a guide

slot affixed to back of seat. When belt is unbuckled it automatically retracts until buckle is stopped at guide slot. This permits entrance and exit without interference from buckle or belt.

Want to know more? Circle 341

Refrigerant hose called Nylaflo is a new, strong, flexible nylon hose from The Polymer Corp., Reading, Pa. It has an extremely low Freon 12 refrigerant effusion rate, can also be used with

Freon 22. The thin, lightweight hose also features low bend radius and permits firm attachment of compact fittings.

Want to know more? Circle 342

Engine spray cures moisture problems that prevent starting. This latest addition to Du Pont's No. 7 line is called Moisture Guard. When waterlogged parts (coil, distributor, plugs, etc.) are sprayed with the new

(TURN TO NEXT PAGE, PLEASE)

FIND DANGEROUS DEFECTS

(CLIP FOR REFERENCE)

*in the shop
where it counts,
not on the road
where it costs!*

from **MAGNAFLUX-**
Low-Cost Test Kits
Quickly Check
Part Quality, Safety

Eliminate the cost of part failure! Portable Test Kits by Magnaflux put teeth into your routine maintenance programs, help make sure you spot breakdown-causing cracks and defects in spindles, frames, axles, shafts, blocks, heads, gears. Quickly check repair welds. Make accurate leak tests of tanks and transmissions. Pick the ready-to-use Test Kit from Magnaflux that fits your needs best...



Y-5 YOKE KIT ▲
Test for cracks in steel or iron parts. Kit includes magnetizing yoke, prepared powder and bath, cleaner, instructions. Metal carrying case. Operates from any 115 V A.C. outlet or 12V automotive battery. Yoke weighs only 7 lbs!
\$195 complete



**MAGNAFLUX-
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MAGNETIC PARTICLE
INSPECTION



L-10 COIL KIT ▲
High field strength for in-place or part testing for transverse cracks. Kit includes 115V A.C. magnetizing coil, prepared bath and powder, instructions. Lightweight aluminum coil, under 16 lbs.

\$195 complete

▲ **YL-51 YOKE-COIL KIT**
Combines Y-5 and L-10 Kits. Includes yoke, coil, prepared powder and bath, cleaner, cord, and instructions in steel carrying case.
\$365.00 complete



ZYGLO
Fluorescent Penetrant
ZA-43 ZYGLO KIT
Finds smallest cracks in aluminum wheels, housings, etc. Cracks glow brightly under 100 W. high intensity Black Light. Leak testing is easy, reliable. Distinguishes motor and transmission leaks. Kit includes Black Light, cleaner, penetrant, developer, brush, instructions — all in metal carrying case.
\$125.00 complete



Spotcheck

Dye Penetrant Kit
Spray on Spotcheck from pressure cans to find surface cracks, seams, pores in any solid. Marks any defect with a red line. "Fire-Safe" High-Flash Point and Nonflammable Materials.

Kit includes cleaner, penetrant, developer, brush, instructions—8 spray cans in all—in metal carrying case.
Spotcheck Kit No. SK-3...\$36.00 complete each

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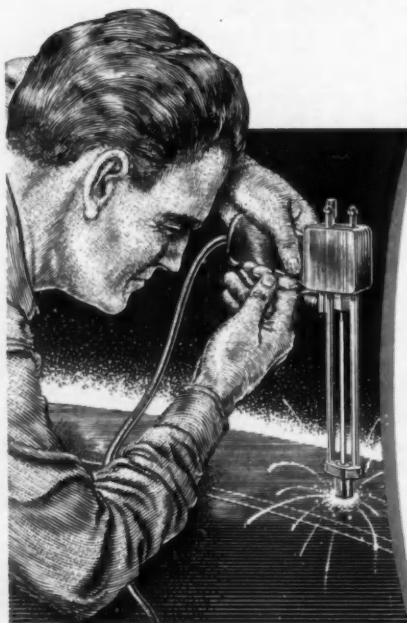
More details? Circle 169 on reply card inside back cover



STEEL MILL EXPANSION—Early last month Alan Wood Steel Co., Conshohocken, Pa., unveiled its new 40-in. blooming mill and 110-in. rolling mill. Part of the company's \$36-million expansion program, it now makes it possible to turn out steel sheet in extra-wide sizes. The new facilities have also tripled output per man-hour of labor.

In left foreground of picture is the slab line from the blooming mill to the up-and-down cut shear. In center foreground is the 110-in. four-high reversing mill where the slabs are rolled. At far end of the building are the non-reversing mill, shear and plate transfer table leading to the hot leveler.

Automatic Spot Welds-Portable Power!



MARQUETTE
Redi-Spot
can cut
your costs
by a good
1/3rd

Raymond Auto Body Shop writes: "Find, by time study methods, we have cut our labor in half on a good many jobs . . . and the usual reworking and shrinking has been eliminated."

Merit Chevrolet writes: "(1) It is a time saver which leads to greater profits, (2) it greatly reduces fire hazards, (3) it is extremely portable, making it very easy to work with."

Fred L. Hensel Co. writes: "Our

Marquette Redi-Spot Welding Gun has proved to be one of the best investments our shop ever made in tool equipment."

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in vehicle accessories

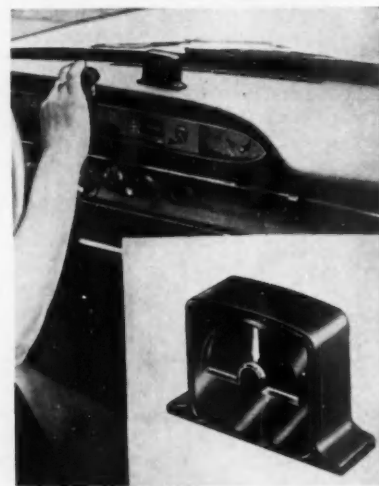
Continued from Page 135

insulative liquid, the engine can be started immediately. When sprayed on metals, Moisture Guard leaves a transparent film that prevents chrome from pitting, checks corrosive action on battery terminals, stops rust on various parts.

Want to know more? Circle 343

Steer-O-Meter

is a new device which mounts on vehicle dash to indicate exact position of front wheels at all times. For safer



and easier vehicle parking, it's offered by Robert C. McDonnell Co., Dayton, Ohio.

Want to know more? Circle 344

Aluminum ramp skids

for automobile transport trailers provide firm, no-slip grip for tires as cars are driven down the incline.

ANNUAL BOTTLERS' ROADEO—Winners of this year's event, held each fall in Philadelphia, pose with their trophies and roadeo officials.

From left to right: Al Ulrich, safety director, Canada Dry Corp. and founder of the Bottlers' Roadeo; George Truman, safety director, Bell Telephone Co. and president of the Philadelphia Chapter of the American Society of Safety Engineers; Angelo De Cola, driver for Canada Dry and first place winner of roadeo; Dave Kohn, vice president, Yellow Cab Co. of Philadelphia and member of the board of directors, National Safety Council (who presented the trophies); Mike Travatore, driver for Booth Bottling Co. and 2nd place winner; Marvin Cohn, general manager, Booth Bottling Co.



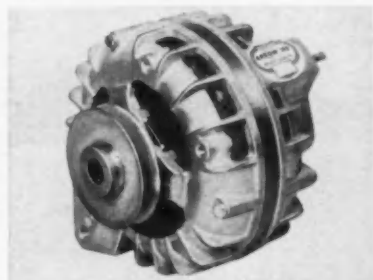
Ramp sections are made to "nest" together for convenient storage in transit. They come in two sizes with rounded edges for safe handling,



weigh about one-third as much as similar steel units. They're made by Delavan Welding Co., Buffalo, N. Y.

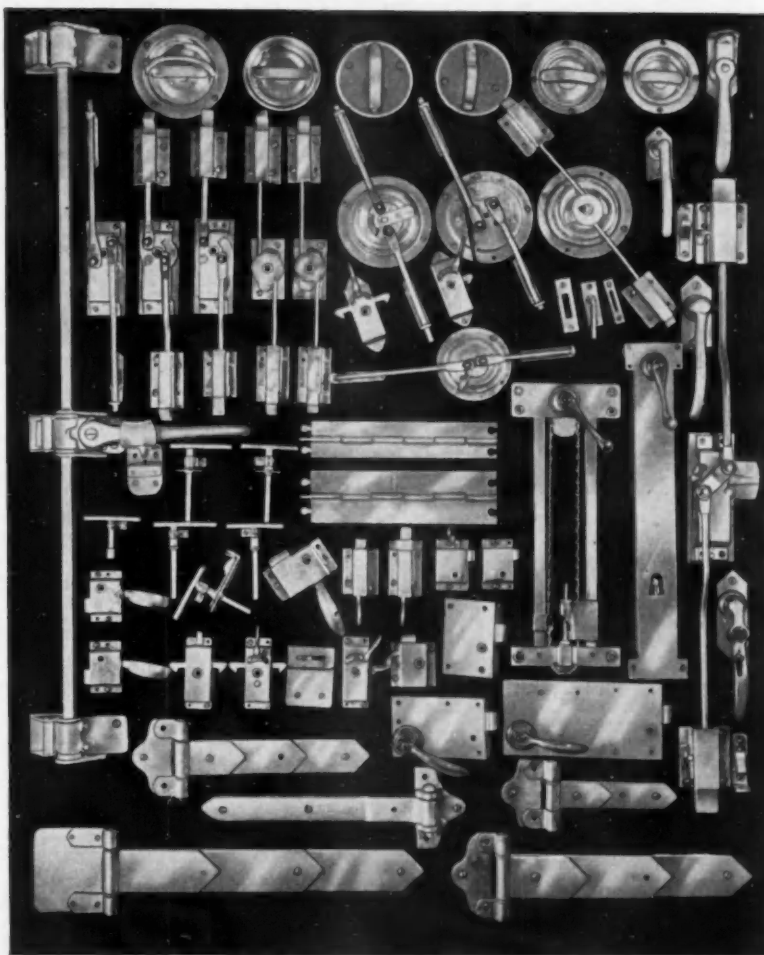
Want to know more? Circle 345

Rebuilt alternators for 1961-62 Chrysler, Dodge, Plymouth and Valiant passenger cars are now available from Arrow Armatures



Co., Boston, Mass. The rebuilt units are exact duplicates of original manufacturer's equipment. Each alternator is equipped with pulley to save time and cost in installation.

Want to know more? Circle 346



**BUILT LIKE A
BULLDOZER!**

HANSEN COMMERCIAL BODY
HARDWARE



All the locks, handles, hinges, regulators and the rest in the big line of HANSEN COMMERCIAL BODY HARDWARE are the net result of almost 40 years' experience in making nothing but the best for maximum service and dependability. Just insist on HANSEN . . . THE HARDWARE FOR HARD WEAR.

A.L. Hansen MFG. CO.

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SEND TODAY for free Hansen Catalog 22.

"Our Ford 220-hp Diesels haul 25% bigger payloads with about the same fuel economy as 170-hp Diesels"

says President R. W. Andrews of Eagle Transport Company, Big Spring, Texas

"Our six Ford HDT-950 tandem tractors with Cummins 220-hp Diesel engines are averaging 6.2 miles per gallon with a GCW of 72,000 lb. This is only about six-tenths of a mile less than some of our 170-hp Diesel units. However, the Fords haul 25% more payload and cut 20% off trip time—and that's real economy!

"We haul liquid asphalt at a temperature of 350° F. some 400 to 600 miles through Texas and New Mexico. Strong cross winds and frequent long grades make these runs just about as severe a test as trucks can encounter. Yet, our Fords are

logging four trips per week and averaging the 850-mile round trip in just 23 hours. Our drivers report Fords have the best performance, ride, visibility, and power train of any units they've driven.

"We also operate 12 Ford tractors with Super Duty V-8 engines on our short runs. These units are fine performers, and they are easy to maintain. It was this good experience with Ford Supers that led us to try Ford Diesels. Our maintenance crew now reports that all components on the Ford Diesels are easy to service—just as our gas jobs had led us to expect."

Solid testimony that Ford's full-time economy only starts with low price!

FORD TRUCKS COST LESS



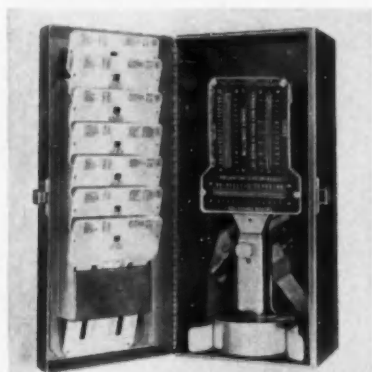
PRODUCTS OF  MOTOR COMPANY





in shop equipment

Fold out free reply cards inside back cover. Use them to find out more about all the items that interest you



Alignment gage set (No. 27AC) with carrying case is from Bear Mfg. Co., Rock Island, Ill. Templates (left) are placed on gage to show correct alignment data for car being serviced. For more details, circle 318 on card



Hand pumps for petroleum products are high-vacuum, double-action units in the 488 series from Tokheim Corp. Fuel is delivered at rate of 10 gal per 100 back-and-forth strokes of the handle. For more details, circle 319 on card



Brake bleeder of 1-gal capacity has automatic air pressure safety valve. Compact unit hangs over job by chain and hook. It comes complete with adapters from Grey-Rock Division, Manheim, Pa. For more details, circle 320 on card

Oil-fired 'Iron Horse' steam cleaner is the new Model No. 120 from Choldun Mfg. Corp., New Haven, Conn. With built-in hot water rinse feature, it delivers 120 gal of steam mixed with chemical solution at 50-100 lb operating pressure.

For complete information, circle 439 on card



Hydraulic-electric big tire spreader is available in both automatic and handpump-operated models. From Tire Equipment Sales, Akron, Ohio, it's a heavy-duty unit that handles truck tire sizes from 7.50 x 20 to 16.00 x 24.

To get further details, circle 440 on card

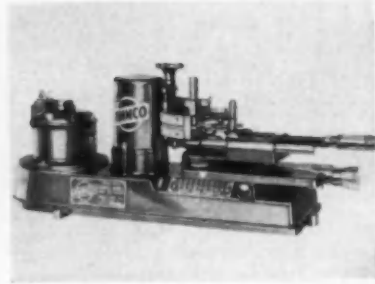




Portable roll-on ramps called Porta-Lift raise one side or either end of any vehicle. They're even ideal for emergency road service. Maker is Allied Automotive Equipment Co., San Diego, Cal. For more details, circle 321 on card



Wheel alignment rack from Hunter Engineering Co., St. Louis, Mo., is the Line-A-Lift power rack with remote pushbutton control. To operate from vehicle, just drive on and push the button. For more details, circle 322 on card



Brake shoe grinder from Ammco Tools, North Chicago, Ill., handles all American and foreign-made shoes in its 6- to 16-in. range. It's the new Model No. 8000 "Safe-Arc" grinder. For more details, circle 323 on card



Brake bleeder attaches to 5-gal drum of brake fluid, converts it to a reservoir to service up to 40 vehicles. The Model No. T3100 from EIS Automotive Corp. requires no air for operation. For more details, circle 324 on card



Wheel balancer called the "Bombsight" uses both the bubble centering principle and a direct-reading weight scale, requires no more than two weights per wheel. It's from Lincoln Engineering Co. For more details, circle 325 on card

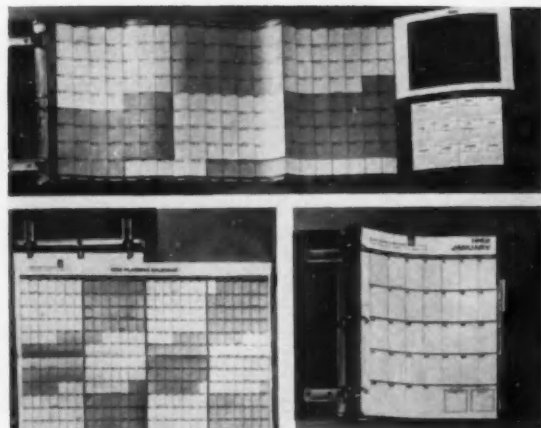


Sand blasting power gun is for the Model C portable Sandy Jet sand blaster from ALC Co., Medina, Ohio. The heavy-duty unit puts air and blast action to work for a variety of cleaning jobs. For more details, circle 326 on card

THERE'S MORE

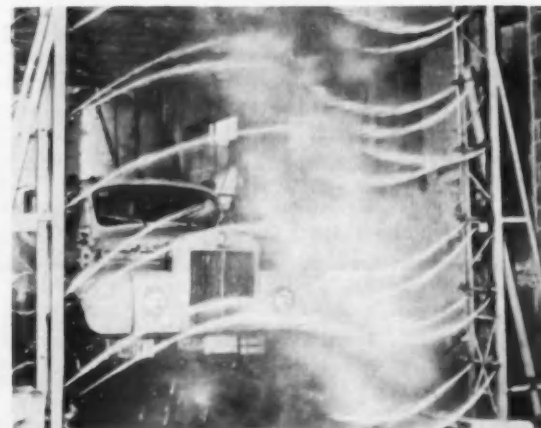
Business-planning calendar is a year-at-a-glance chart with space to note each day's work plans. Three types are designed to fold into a standard 3-ring folder. Ideal for scheduling shop work load, it's from Skokie Valley Design Group, Chicago.

Circle 441 to obtain more information



Vehicle washer is a high-pressure, high-capacity, oscillating type named Oscillaspray by Ross & White Co., Wheeling, Ill. It's designed to wash odd-shaped units that can't be handled efficiently by brush-type washers.

For more details from maker, circle 442





Peanuts Characters © 1960
United Feature Syndicate, Inc.

Could be, Lucy—but *nothing* touches a fleet owner's heart like operating economy. And combined with room for 6, high resale value and low price—as in Falcon for 1962—you can almost hear those fleet owners falling in love! Falcon saves on gas—with an improved version of the Falcon Six that got the best gas mileage for a "6" or "8" in the 25-year history of the Mobilgas Economy Run. Falcon saves on oil—it now goes 6,000 miles between oil changes. Falcon also goes 30,000 miles or two years without changing engine coolant-antifreeze. As sales leader every year since its introduction, Falcon rewards you handsomely at resale time. And it's still America's lowest-priced* 6-passenger car. That's Ford Falcon for '62 . . . and your Ford Dealer has 'em in quantity!

*Based on a comparison of manufacturers' suggested retail delivered prices including heater

Send for a free copy of the **FLEET BUYER'S GUIDE** . . . facts on all of Ford's fine fleet cars—Fleet Sales Mgr., Ford Motor Company, P.O. Box 503, Detroit 32, Michigan
The car that makes a business of savings will make savings in your business!



Ford Falcon '62



in shop equipment

Continued from Page 141

Portable tool cabinet called the Model 707 "Station Wagon" has wheels in back and steel feet in front. It moves to the job "wheel-



barrow" fashion, then stands erect without slipping or skidding. Front compartment has doors that slide out of the way into the cabinet when in use. It's made by Huot Mfg. Co., St. Paul, Minn.

Want to know more? Circle 347

Battery fillers and testers just announced by Ken-Tool Mfg. Co., Akron, Ohio, are automatic, self-leveling units. The Ken B-70 au-



tomatic battery filler fills to correct level, then shuts itself off to eliminate spills and dripping. The Ken B-71 combines an automatic filler and tester in a single unit, tests either 6- or 12-volt systems, has a visual trouble indicator.

Want to know more? Circle 348

Hot dip cleaning tanks designed for fleet maintenance shops

are offered by Aeroil Products Co., South Hackensack, N. J. Twelve sizes range from 50 to 1220 gal with full-length scum gutters, full insulation and heavy-duty grilles. Tanks can be heated by kerosene, natural gas, LP gas or electricity. Each is equipped with dial thermometer, also an automatic timer, if desired.

Want to know more? Circle 349

Epoxy surfacing compound for floors and other surfaces is designated No. 6713 by Dennis Chemical Co., St. Louis, Mo. Applied in ¼- to ½-in. thickness, it's equal in strength to about two inches of concrete. Compound can be featheredged, is ideal for patching or overlaying concrete, wood or steel floors, or for surfacing walls or lining tank interiors.

Want to know more? Circle 350

Lightweight tool line just announced by Proto Tool Co., Los Angeles, Cal., is made of new high-strength aluminum alloy. First items in the "Protolite" line are two ratchet wrenches weighing 43 per cent less than comparable steel wrenches

with equal strength and exceeding federal torque performance specs for these units.

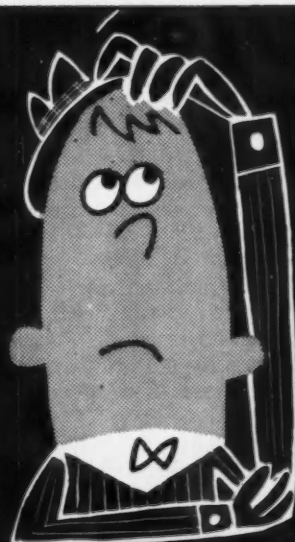
Want to know more? Circle 351

Portable brake shop just introduced by Ammeo Tools, Inc., North Chicago, Ill., is the Model No. 30 Brake-Shop-on-Wheels. It takes up



only 3 x 5 ft of floorspace, is easily moved to various sections of the shop, as needed.

Want to know more? Circle 352



WAS THAT COSTLY OVERHAUL REALLY NECESSARY?

It could probably have been put off for thousands of miles of profitable operation had the Exhaust System been checked when horsepower began to fade, acceleration became sluggish, fuel consumption climbed and valves began to malfunction. All these are signs of a clogged Muffler and or Exhaust pipe. Like to know why RIKER Mufflers and Exhaust Systems lead a longer, cleaner life? Write for booklet!



RIKER

ALWAYS CHECK
THE EXHAUST SYSTEM
FIRST

MANUFACTURING, INC. 4901 Stickney Ave., Toledo 12, Ohio

More details? Circle 174 on reply card inside back cover

More details? Circle 175 on reply card inside back cover

New from Ken

automatic SELF-LEVELING BATTERY FILLERS

- FLOW AUTOMATICALLY!
- SHUT OFF AUTOMATICALLY!
- FILL TO CORRECT LEVEL!
- BIG 2½-QUART CAPACITY

Ken's New B-70 Automatic Battery Filler quickly fills to correct level—shuts off automatically. No spills... No dripping. Ideal for dry charge batteries. Both valve and container are made of high-impact styrene and polyethylene to withstand long, hard use with either water or battery acids. Also features the only automatic valve for which all parts are replaceable!



Dual-Automatic FILLER and TESTER

Another "first" by Ken, this B-71 Automatic Filler and Tester is combined in a single unit to make battery service a one-stop operation. Fills batteries to correct level automatically.

Tests either 6 or 12 volt systems with visual trouble indicator. Extra wire, with simple clip, makes it easy to locate many other car shorts.



*Find trouble
fast and easy*

- Sell more charges
- Sell more batteries
- Sell more service

CALL YOUR JOBBER

Put one of these sales builders to work for you now!



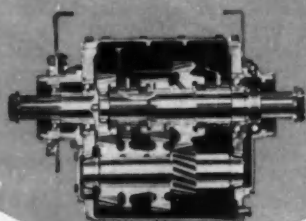
Get your pocket-size copy of Ken's all-new, complete-line catalog. Ask your jobber or write Ken direct.

K-061-126 A

THE KEN-TOOL MFG. CO.
AKRON 5, OHIO

Largest exclusive manufacturer of Specialized
Tire Changing Tools, Equipment, and Garage
Tools... Known and used around the World

- High Capacity
- Low Initial Cost
- Reduced Maintenance
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for medium-heavy duty trucks and tractors, specify one of the eight

Fuller '65 Series 3-Speed Auxiliary Transmissions

available from all truck manufacturers upon specification.
Top-mounted power take-off optional.

'65 SERIES (Medium-heavy-duty) RATIOS

MODEL	SPLITTER RATIOS			DEEP REDUCTION
	High	Inter-mediate	Low	
3-A-65	.754	1.00	2.221	
3-B-65	.804	1.00	1.239	
3-C-65	.754	1.00	1.239	
3-D-65	.804	1.00	2.221	
3-E-65	.804	1.00	1.74	
3-F-65	.754	1.00	1.74	
3-G-65	1.00	1.32	2.221	
3-H-65	1.00	1.32	1.74	

For the right transmission
for every operation

Specify

Specify the **MODEL**

**FULLER TRANSMISSION
DIVISION**

EATON MANUFACTURING COMPANY
KALAMAZOO, MICHIGAN

More details? Circle 260 on reply card

Adohr tries diesel...

Continued from Page 92

the door-to-door delivery picture. "It's got to outlast the gasoline engine and it's going to have to have a much better maintenance history."

Erickson currently gets around 50,000 miles on a gasoline engine before a major overhaul. He feels he'll have to double that with the diesel. He believes such an expectation is not out of line in view of the experience of other fleets of larger diesel vehicles.

Steadily increasing costs of retail delivery operations have forced Adohr to make a field test of the practical possibilities of using diesels in delivery vehicles.

"Anyone familiar with transportation problems knows the kind of treatment we give our equipment," Erickson explains. "It's 150-200 stops a day, and lots of low-gear work in between. With about 350 trucks on the road running, up over 300,000 miles per month, it's easy to see why we're doing some experimenting."

The "220" Ford diesel installed in the Adohr truck was originally designed for industrial applications. Widely used, it is a 4-cyl, 4-cycle, 220-cu in. engine developing 60 hp at 2250 rpm. It replaces the standard 6-cyl Ford 223-cu in. engine found in most of the F-350 chassis.

The two front motor supports were modified slightly and the throttle linkage required alteration. Space?—The diesel fits in comfortably with more-than-adequate room for servicing and inspection.

Boosted speed

Erickson calculated that the relatively slow-speed diesel would give the truck a speed of only 38 mph with the original 4-speed, fourth-direct transmission and 5.83:1 differential. They installed another transmission—Ford's 5-speed, fifth-overdrive model. The differential ratio was changed to 5.14:1. These alterations boosted top speed to 52 mph. In place of the 11-in. clutch used with the gasoline engine, a

12-in. heavy-duty one was used.

As was anticipated, a few operational drawbacks have resulted:

First, of course, is noise. "We're just going to live with it for the time being," says Erickson. "We've got the truck operating in an area where it will not only get a rugged test but where customers have been satisfied with a late delivery schedule. If we were to try to use this truck as it's presently set up in a heavily built-up apartment neighborhood requiring early morning delivery, we might run into some customer relations problems."

Bob Erickson thinks if the diesel proves economical enough, they can lick the problem of diesel injector noise. Right now, he's content to keep the diesel on a semi-rural late morning route and watch the balance sheet.

Diesel odors presented a problem which has apparently been completely licked. Exhaust was originally discharged beneath the truck through a conventional exhaust system. Adohr received a few complaints from customers who were bothered by diesel fumes hours after the truck had made its delivery.

It took Erickson only a short while to realize that the fumes discharged on the cold, damp ground were hovering there until the breeze came up later in the morning. The odor problem was solved—for the customer, and inside the truck as well—by running the exhaust stack up the rear of the truck for discharge about 10 ft above the ground.

Engine vibration is noticeable, even with idling rpm kicked up to 600. But this is a problem that the driver alone must contend with. And the two drivers operating the truck find it not too unpleasant.

There is no question that the Adohr people are encouraged following the first half-year of operation. But they won't make their decision until they can check their records over a fair trial period, find ways to overcome nuisance factors of noise and vibration.

END

Please Resume Reading Page 93

Operation "FOODPOWER"

Geared by Fuller models 5-W-74, R-46 and R-96 Transmissions



The McMillen Feed Division of Central Soya can produce more than one million tons of *Master Mix* feed annually.

"Good transportation is a must for us," states Harley Donnell, Manager of Central's Truck Department. "Our rigs operate both west of the Mississippi and in practically every state in the East with an average of over 70,000 miles per year."

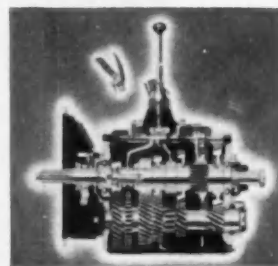
"Sixteen six-wheel White 9064 TD's with NH-220 diesels and Fuller R-96 ROADRANGER Transmissions are headquartered at Gibson City, Illinois. Another ten such rigs—geared by the same 10-speed ROADRANGER—are stationed at the company's Decatur, Indiana operation."

"Our Chattanooga, Tennessee plant took delivery of seven new International BC-225 Diesel Tractors equipped

with 5-speed Fuller 5-W-74 Transmissions late in 1960.

"At our Marion, Ohio plant, eight International R-225's equipped with R-501 engines are in operation. All are Fuller-equipped—with the 10-speed ROADRANGER, and with 8-speed ROADRANGER Transmissions."

"As we increase our fleet, we continue to specify reliable Fuller Transmissions, because we know that they will give us the performance and availability which we must have for our 'Operation FOODPOWER'."



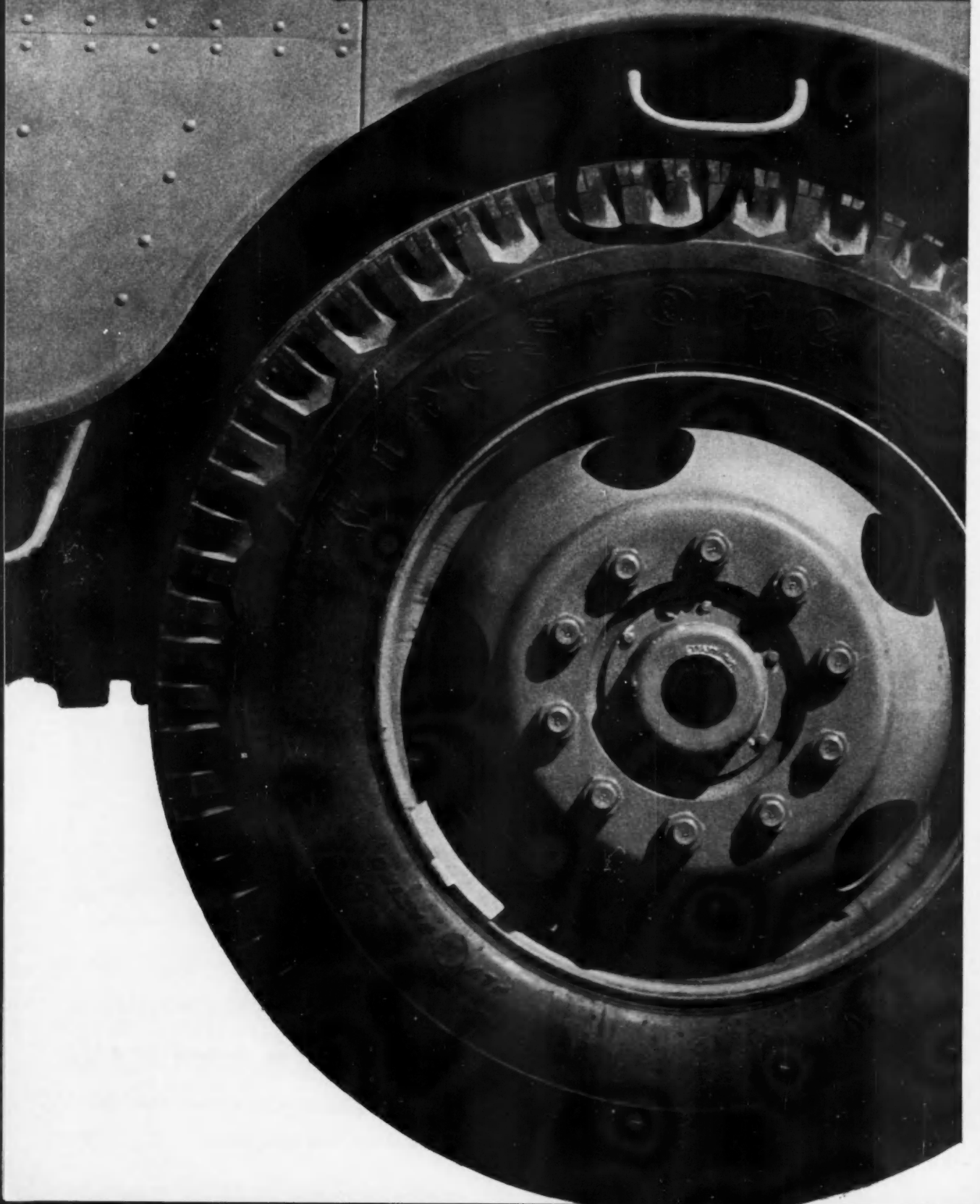
5-W-74 Transmission

FULLER TRANSMISSION DIVISION
EATON MANUFACTURING COMPANY
 KALAMAZOO, MICHIGAN

Sales & Service: West. Dist. Branch, Oakland 6, Cal. • Southwest Dist. Office, Tulsa 3, Okla. • Automotive Products Co., Ltd., Brock House, Langham St., London W.1, England, European Rep.

10,000 GRL.
PUCI-21-CC
ICC 42487

12,000 GRL.
36,000 W
40,000 M





This mark tells you a product is made of modern, dependable Steel.



Steel disc wheels are specified on all original equipment for general freight service at Consolidated Freightways of Menlo Park, California. Except for replacement due to obsolescence, normal life of Consolidated Freightways equipment approaches 10 years. In many cases their trucks accumulate over a million miles, covering routes in 33 states and Canada.

You'll find that steel disc wheels will save you money on new equipment and keep saving you money for many thousands of miles. Steel wheels stay round and true, so tires last longer. There's no lateral or radial runout. Their smooth rolling qualities increase vehicle life, cut down driver fatigue, add to passenger comfort and protect cargos.

USS Carbon Steel Plates and USS Hot Rolled Special Rim Sections go together to make steel disc wheels that are designed for today's high-speed, long-range operations. It will pay you to specify steel disc wheels on *your* new equipment. Switch to disc wheels of USS Steel on your present equipment. You can do it for less than you might think!

United States Steel Corporation • Columbia-Geneva Steel Division • Tennessee Coal and Iron Division • United States Steel Export Company



TRADEMARK

United States Steel

Consolidated Freightways operates thousands of line vehicles in 33 states and Canada. They distribute the load in the trailer so that each wheel carries approximately the same weight.

KNOW WHERE YOUR GAS GOES



NEW BENNETT 2700 SERIES



Model 2789 with Register,
Totalizer and Ticket Printer

FLEETMASTER

Accurate accounting records are assured at all times by the new Bennett Fleetmaster Ticket Printer Pump featuring double interlocking that prevents starting before resetting the register. Also the printer must be operated before the pump can make a new delivery and a skip in sequence shows up when a ticket is not used, thus preventing pilferage. Identifier letters are available to indicate delivery from a specific pump. You will also like the smart modern business-machine look and practical everyday utility of this series, available in Standard and Heavy-Duty self-contained or in Remote Control models, all built with the quality and low maintenance cost that are traditional with Bennett. Ticket Printer Pumps are furnished with an accumulative printer but may have a zero start printer if desired. Fourteen foot hose "reach" is provided by 13 feet of 3/4 inch hose and nozzle. Fleetmasters are available with register and totalizer only where ticket printer is not desired. All models are Underwriters' Laboratories approved.

See your Bennett Representative for full details.



JOHN WOOD COMPANY

BENNETT PUMP DIVISION • Muskegon, Michigan

IN CANADA: JOHN WOOD COMPANY LIMITED • Toronto • Montreal • Winnipeg • Vancouver

Maintenance safety

Continued from Page 99



Maint. Supt. G. L. B. Cousins built this welding cart with tanks inclined for better stability, easier access

draglines, including their 100-ft booms.

The scalping plant and pumps for washing aggregate are along the river and are electrically powered. To supply these plants as they move along the river bank to keep up with the draglines, the shop built several traveling transformers. These have quick-disconnect couplings, are easy to move when the time comes. In addition, each has a wooden guard fence.

The heavy electric cables, from the transformers to the equipment, trail along on the ground. Where they cross haul roads, the shop built supports to carry the cables overhead.

The mobile transformers with quick-disconnect assemblies eliminate the usual practice of cutting and rewiring for each move. It also gives a substantial time saving on disconnects and damage to the cable. Added feature is safety, as this method is inherently safe at all times.

By keeping safety first and foremost in its work, the Maintenance Dept. has helped to boost production records. "Safety is the binding ingredient," says Lawrence, "which ties our maintenance and production teams together. When you really think about it, good maintenance spells 'safety.' You simply can't get by with makeshift or temporary measures if you expect to do the job right and still make a profit."

END

Please Resume Reading Page 100

Now! the New **McQUAY-NORRIS**

MI-1000 Engine Bearing



**... longer life under
heavy loads**

THE Blue Box LINE
... synonymous with quality



the new **MI-1000** ENGINE BEARING

1. Precision Steel Back
2. Sintered Copper-lead Lining
3. Barrier Plate
4. One thousandth of an inch Babbitt Overlay
5. Pure Tin Flash

Longer engine life—less down time—more economical operation! The new McQuay-Norris **MI-1000** engine bearing insert offers these money-saving and money-making features because they are precision built to withstand heavier bearing loads and higher temperatures.

The **MI-1000** engine bearing has an "extra thin" babbitt lining only .001 of an inch

thick, electrolytically applied on a hard and durable sintered copper-lead base. The **MI-1000** has the fine anti-friction qualities of babbitt plus the terrific strength of copper-lead—so it is easy on the shaft, yet won't pound out under the most severe service.

The combination of the **MI-1000** plus McQuay-Norris Heavy Duty, Chrome Control, Leak-Proof Piston Ring set, not only keeps the job running longer, but also cuts gas and oil costs.

Yes, the new McQuay-Norris **MI-1000** engine bearing is a natural for fleet operators. Use them on your next job.

McQUAY-NORRIS MANUFACTURING CO., ST. LOUIS • TORONTO
More details? Circle 178 on reply card inside back cover



**Can your present trucks
match the record of
the 185 Macks operated
by Refiners
Transport,
Detroit?**





Better than 300,000 miles before overhaul . . . 6 mpg throughout this mileage, with 78,000 lbs. GCW and plenty of extra engine hours for pumping . . . power to spare for 82,600 lbs. in semi-full trailer combinations . . . minimum time out for repairs.

"These are actual operating figures," reports C. C. Bingham, Assistant to the President, Refiners Transport & Terminal Corp., Detroit, "for our 185 Thermodyne" diesel Macks."

Operating in all types of weather from the Midwest to the northeastern seaboard, with routes as long as 1300 miles, Refiners' Macks keep operating costs to a bare minimum.

Latest addition to Refiners' all-Mack over-the-road fleet of B Models is a new G Model COE tractor whose short BBC dimensions give Refiners the perfect vehicle for top legal gross load combinations in bridge formula areas.

Mack offers a complete line of heavy-duty trucks and tractors designed to fit *your* hauling jobs exactly. Join the trend of more and more truck operators to Macks and see your Mack representative today. Mack Trucks, Inc., Plainfield, New Jersey. Mack Trucks of Canada, Ltd., Toronto, Ontario.

8170

MACK
FIRST NAME FOR
TRUCKS



**Cut
Towing
Costs..**

**WITH A
WATSON
Towmaster**
(Detachable Truck Retriever Crane)



Typical of the many nationally-known fleets using TOWMASTERS, Pacific Intermountain Express uses the WATSON TOWMASTER to retrieve even the heaviest "West Coast" type tractors. Saves on downtime—operator tows out a good tractor and the load is on its way as he returns to the shop with the disabled one. TOWMASTER Truck Towing Cranes can be attached to or removed from any tractor fifth wheel in 10 minutes or less. "Lift-off" winch makes it an easy one-man job. Has plenty of capacity for all highway breakdowns and most wrecks, too—even 3-axle rigs. Costs less than \$600.00—why pay more? Write for free catalog today. Please address Dept. 18.

18

WATSON

H. S. WATSON COMPANY

1316 - 67TH STREET, EMERYVILLE 8, CALIFORNIA
1606 LASKEY ROAD, TOLEDO 12, OHIO

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**ONE MAN
DOES THE WORK
OF TWO WITH
SPEED WASH**

FOUNTAIN BRUSHES
No. 240 No. 250
OBLONG ROUND
11" back, 5" handle 5 1/2" diameter back, 5" handle
\$12.45 COMPLETE Either Style
Replacement heads only \$8.50
Speed Wash fountain brushes actually cut washing time from 40 to 60% . . . take half the manpower. 100% tynex nylon tufts will not mat or tangle, are securely anchored in waterproof block.

SPEED WASH FOUNTAIN BRUSHES

Milwaukee Dustless Brush Co., 530 N. 22nd St., Milwaukee 3, Wis.
Please ship the following: QUAN.

240 Oblong Speed Wash
250 Round Speed Wash

Please send additional information and quantity prices

NAME

STREET

CITY STATE

More details? Circle 182 on reply card inside back cover

← More details? Circle 179 on reply card inside back cover

**NEW
PRODUCT
LITERATURE**



**NEW MOTOROLA BUILT-IN IGNITION NOISE
SUPPRESSION FOR (25-50 mc) TWO-WAY RADIOS**

A means of suppressing ignition noise interference caused from vehicle electrical systems has been developed by Motorola for extending the operating range of trucking company two-way radio systems and providing more reliable reception in heavy traffic areas.

The new product is available immediately as models of Motorola's transistorized MOTRAC low band (25-50 mc) mobile radio line. Known as "Extender" operation, the device eliminates impulse interference from the radio-equipped vehicle and all other vehicles in the vicinity. An interference-causing impulse is generated each time a single spark plug fires. The new Motorola product will be especially beneficial to users whose vehicles operate in heavy traffic areas where a concentration of interference may prevent many messages from being received.

Write for complete literature to Dept. ACJ149.

Motorola Communications & Electronics, Inc.

4501 Augusta Blvd. Chicago 51, Illinois
A Subsidiary of Motorola Inc.

More details? Circle 181 on reply card inside back cover

KIM HOTSTART
Pre-Heaters
ASSURE INSTANT STARTS
IN FREEZING WEATHER

**MORE PROFIT
DOLLARS**

Resulting from
Preventive
Maintenance



SEE YOUR DEALER
or write direct
to Kim Hotstart

Install the KIM HOTSTART Electric Pre-Heater! — Engines are kept warm between runs, eliminating inside heated terminals. KIM provides instant cold weather starting; reduces service tie-ups and costly repairs. KIM plugs into electric circuit; draws cold water from engine; heats and circulates coolant through engine. Approved and used by all major engine manufacturers.

KIM HOTSTART MFG. CO.

West 917 Broadway • Spokane 1, Washington

More details? Circle 183 on reply card inside back cover

COMMERCIAL CAR JOURNAL, December, 1961

TRUCK FLEETS

Continued from Page 13

their attack on 24 eastern railroads for \$217,358 in damages caused by the rails' publicity campaign against long-haul trucking.

The case started in 1957 when a District Court ruled that the publicity campaign violated the Sherman Antitrust Act. In 1958, the court awarded treble damages of \$852,074. The decision was upheld by the U. S. Court of Appeals. However, last February, the U. S. Supreme Court reversed the awards by a 9-0 vote.

Lawyers this time will try to prove the damage caused by the rails' publicity did "cause intentional and unjustified injury" to the motor carriers in violation of common law. Hearing date hasn't yet been set.

Contractors blame state officials

Highway contractors, worried over the high cost of building the new super-roads, have passed a

resolution laying a good deal of the blame on state highway officials.

At the highway directors' sessions of the Associated General Contractors of America, the group passed a resolution stating \$41-billion will not be enough to complete the project unless changes are made.

They called for their members to visit the state highway engineers with these requests: That they (1) "provide workable specifications which can be followed, (2) give the resident engineer the authority he needs properly to inspect the work and make the necessary field changes without impeding progress and production, and (3) provide better testing procedures and methods which will prove the quality of the work as it is accomplished without limiting in any way the contractor's ability to maintain high production with good modern equipment and methods."

Sunderland joins Transcon

David M. Sunderland has joined
(TURN TO PAGE 156, PLEASE)

UNBEATABLE COMBINATION • CONTINENTAL •



AND THE FINEST TRANSPORTATION EQUIPMENT

Any vehicle is truly at its dependable best with Continental Red Seal, the power that's engineered to its job. You find Continentals wherever there's work being done, not only in transportation, but in industry and

construction and on the farm. They're building acceptance for leading manufacturers of highway and off-highway vehicles, because They're Built to Take It—and They're Backed by Service Coast to Coast.

Continental Motors Corporation

MUSKEGON • MICHIGAN

More details? Circle 184 on reply card inside back cover

COMMERCIAL CAR JOURNAL, December, 1961

MODERNIZE and save BIG MONEY with **mechanex** WHEEL OIL SEALS



...SURE, ECONOMICAL
Bearing Protection

Slash operating costs . . . protect and extend the life of truck and trailer wheel bearings. Eliminate grease repacks and costly downtime. Get *original* and time-proven Mechanex Wheel Oil Seals for your equipment NOW.

Recognized as superior by both fleets and manufacturers, Mechanex Seals will save you an average of \$100.00 PER TRAILER PER YEAR!

and... VALVE STEM LOCKS

You get perpetual tire insurance for only pennies with Mechanex Valve Stem Locks. Absolutely stops valve stem pull-in on "run-flats." Quickly installed by hand . . . Rust-free . . . universal application.



Both of these fine Mechanex products are available on all new equipment—factory branches and leading parts suppliers.



THE mechanex CORPORATION

3773 S. Jason
Englewood, Colo.

TWO SUPERIOR MECHANEX PRODUCTS

More details? Circle 261 on reply card





HOW BOYERTOWN KEEPS EVERY BODY HAPPY



Boyertown Auto Body Works of Boyertown, Pennsylvania is keeping delivery truck owners, drivers and maintenance men especially happy these days by using a new, all-around material in its body construction: J&L Nickel-Copper-Titanium high-strength forming steel.

The owner is pleased because lighter weight means lower operating cost. And Boyertown has been able to save from 600 to 650 pounds over mild steel in a 12-foot forward control delivery body—with no sacrifice of strength!

The driver is satisfied because the increased ductility of J&L Nickel-Copper-Titanium makes it possible for Boyertown to design bodies with greater flexibility—provide more convenience and safety for the man behind the wheel.

The maintenance man is happiest of all. J&L Nickel-Copper-Titanium has a minimum of 4 times the corrosion resistance of mild steel. (For extra protection, Boyertown coats it with rust-inhibiting zinc chromate). It has greater abrasive and impact resistance, and less tendency to dent and wear.

When maintenance is necessary, dents can be easily "bumped out," and repairs are quick and inexpensive.

That's why Boyertown—a pioneer in the use of high-strength steel—continues to specify J&L Nickel-Copper-Titanium for its exterior and interior truck panels, posts, ribs, cross members, floors, doors and windshield assembly. Ask your J&L salesman about J&L's other new high-strength steels, JLN-W Columbium-Bearing and J&L "Cor-Ten."

Jones & Laughlin Steel Corporation

3 Gateway Center, Pittsburgh 30, Pennsylvania



More details? Circle 185 on reply card inside back cover

TRUCK FLEETS

Continued from Page 153

Transcon Lines as supt. of field maintenance in Oklahoma City, main maintenance base for the Los Angeles headquartered fleet. Sunderland was formerly with Mack Trucks and General Motors Truck & Coach Div.

Two Trucking Assns. move

Alabama Trucking Assn. has moved into new permanent headquarters at 111 S. Union St., Montgomery, Ala.

Michigan Trucking Assn. has moved its headquarters to Lansing. New address is 440 Stoddard Bldg. The Michigan Motor Carrier offices will remain in Detroit—but at a new address: 843 Free Press Bldg., Detroit 26.

Inebriated Truck Mechanic (to street lamp): "Aw, c'mon, Honey . . . Slip off the corset!"

Cooper-Jarrett gets new V.P.

Fred Johnson is the new executive vice president of Cooper-Jarrett. Formerly v.p.-operations, he was elected to the new position following the death of the fleet's president, Guy Cooper. Chairman of the Board Robert E. Cooper, Jr., has reassumed the posts of president and chief executive officer following his brother's death.

END

Please Resume Reading Page 17



More details? Circle 262 on reply card

**B
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S**

THE ORIGINAL SPRAY STARTING FLUID*



• Starts diesel and gasoline engines (from the smallest to the largest) down to 65° F. below zero • Starts in seconds • Excellent in humid weather too • Millions of cans sold • See your automotive jobber

*The inventors of spray starting fluid. Patent No. 2,948,595

Ask for the can with the "balky donkey" trademark

SPRAY PRODUCTS CORPORATION

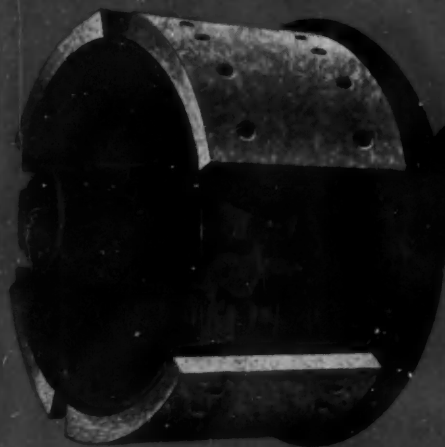
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INDEX

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to advertisers

A

AC Spark Plug Div.54-55
Agency: D. P. Brother & Co.
Allison Div. General Motors Corp. ... 123
Agency: Kudner Agency, Inc.
Aluminum Co. of America110-111
Agency: Fuller & Smith & Ross,
Inc.
American Hammered Div. 8
Agency: Roche, Rickerd & Cleary,
Inc.
American Oil Co.30-31
Agency: D'Arcy Adv. Co.
Auto Specialties Mfg. Co.3rd Cover
Agency: Paxson Advertising, Inc.

B

Bacharach Industrial Instrument Co. 4
Agency: W. S. Hill Co.
Bendix Corp.
Automotive Div. 42
Product Div. 21
Agency: MacManus, John & Adams,
Inc.
Black & Decker Mfg. Co.105-106
Agency: Van Sant, Dugdale & Co.
Bostrom Corp. 23
Agency: Buchen Adv. Inc.

C

Chevrolet Div. 40
Agency: Campbell-Ewald Co.
Chicago Pneumatic Tool Mfg.
Co.2nd Cover
Agency: G. M. Basford Co.
Chicago Rawhide Mfg. Co. 60
Agency: Waldie & Briggs, Inc.
Clevite Corp. 52
Agency: Duffy, McClure & Wilder,
Inc.
Continental Motors Corp. 153
Agency: Hopkins Agency

D

Dana Corp.44-45, 56
Agency: Allman Co., Inc.
Detroit Diesel Engine Div. 66
Agency: Kudner Agency, Inc.
Diamond T Motor Trucks 107
Agency: Roche, Rickerd & Cleary,
Inc.
Du Pont De Nemours & Co., Inc., E. I. 48
Agency: Batten, Barton, Durstine &
Osborn, Inc.

E

Eaton Manufacturing Company
Division:
Fuller Transmission Div.144-145
Eberhard Mfg. Co. 133
Agency: Ball Adv., Agency
Eis Automotive Corp. 32
Agency: Furman Co., Inc.

F

Federal Mogul-Bower-Bearings Inc... 15
Agency: Ross Roy, BSF&D Inc.
Firestone Tire & Rubber Co. 12
Agency: Campbell-Ewald Co.
Ford Authorized Reconditioners'
Association 112
Agency: Creative Associate, Inc.
Ford Motor Co.
Fleet Div.61, 142
Truck Div.138-139
Agency: J. Walter Thompson Co.
Fruehauf Trailer Co.14, 109, 121, 129
Agency: Allman Co., Inc.
Fuller Transmission Division144-145
Division: Eaton Manufacturing
Company

G

General Motors Corp.....69 thru 72
Agency: McCann-Erickson, Inc.

Gledhill Road Machinery Co. 156
Agency: Chapel & Associates
Goodyear Tire & Rubber Co.
Metal Products26-27
Tires Div.18-19
Agency: Kudner Agency, Inc.
Gould National Batteries Inc. 126
Agency: E. T. Holmgren, Inc.
Gulf Oil Corp.38-39
Agency: Ketchum, MacLeod &
Grove, Inc.

H

Hansen Mfg. Co., A. L. 137
Agency: Paul J. Steffen Co.
Hastings Mfg. Co. 1
Agency: Bozell & Jacobs, Inc.
Holley Carburetor Co. 80
Agency: Clark & Bobertz, Inc.
Homestead Valve Mfg. Co. 51
Agency: Van Sant Dugdale & Co.

I

International Harvester Co.10-11
Agency: Young & Rubicam, Inc.

J

Jacobs Mfg. Co. 53
Agency: Wilson, Haight & Welch,
Inc.
Jones & Laughlin Steel Corp.154-155
Agency: T. N. Palmer & Co.

K

Kelsey Hayes Co..... 126
Agency: Zimmer Keller & Calvert, Inc.
Ken Tool Mfg. Co. 143
Agency: Norman Malone Associates,
Inc.



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SAN FRANCISCO 3, CAL. 1355 Market St. Underhill 1-7107.....FRANK W. MCKENZIE

Kendall Refining Co. 132
Agency: Barber & Drullard, Inc.
Kiddle & Co., Inc., Walter 134
Agency: G. M. Basford Co.
Kim Hotstart Mfg. Co. 152
Agency: Showacre, Coons, Shotwell

L

Leece-Neville Co. 37
Agency: Griswold-Eshelman Co.
Lipe Rollway Corp. 58
Agency: Barlow Johnson, Inc.

M

McQuay-Norris Mfg. Co. 149
Agency: D'Arcy Adv. Co.
Mack Trucks Inc. 115, 150-151
Agency: Doyle, Kitchen & McCormick, Inc.
Magnaflex Corp. 135
Agency: Stoetzel & Associates, Inc.
Mahon Co., R. C. 4
Agency: Dudgeon, Taylor & Bruske, Inc.
Marquette Mfg. Co. 136
Agency: Colle & McVoy, Adv.
Agency, Inc.
Mechanex Corp. 153
Agency: R. D. Ladders & Associates
Midland-Ross Corp. 41
Agency: Allman Co., Inc.
Milwaukee Dustless Brush Co. 152
Agency: Al Herr Adv. Agency, Inc.
Mobil Oil Co. Div. Socony-Mobil Oil Co. 64-65
Agency: Ted Bates & Co., Inc.
Molded Fibre Glass Co. 113
Agency: Carpenter Adv. Co.
Mo Par Div. Chrysler Corp. 24
Agency: N. W. Ayer & Son, Inc.
Motorola Communications & Electronics Inc. 43, 152
Agency: Kolb & Abraham, Inc.

O

Oakite Products Inc. 3
Agency: Marsteller, Rickard, Gebhardt & Reed, Inc.
Oldsmobile Div. 108
Agency: D. P. Brothers & Co.
Overland Anchorlok Inc. 50
Agency: Jordan Adv., Inc.

P

Perfect Circle Corp. Back Cover
Agency: Compton Adv., Inc.
Plymouth Div. Chrysler Corp. 117
Agency: N. W. Ayer & Son, Inc.

R

Reo Div. 126-127
Agency: Zimmer Keller & Calvert, Inc.
Riker Mfg. Co. 143
Agency: Bradford & Co.
Rockwell-Standard Corp. 49
Agency: MacFarland, Aveyard & Co.

S

Scandura Inc. 156
Agency: Downing Industrial Adv., Inc.
Schradar & Sons, A. 59
Agency: G. M. Basford Co.
Sealed Power Corp. 74
Agency: Roche, Rickard & Cleary, Inc.
Shell Oil Co. 67
Agency: Ogilvy, Benson & Mather, Inc.
Spray Products, Corp. 156
Agency: Richard R. Lukasiak Adv.
Standard Motor Products Inc. 16
Agency: Fuller & Smith & Ross Inc.

Standard Oil of Calif. 22

Agency: Batten, Barton, Durstine & Osborn, Inc.
Stewart-Warner Corp. 67
Agency: MacFarland, Aveyard & Co.

T

Texaco Inc. 33 thru 36
Agency: G. M. Basford Co.
Timken Roller Bearing Co. 68
Agency: Batten, Barton, Durstine & Osborn, Inc.
Trailmobile, Inc. 62-63
Agency: Farson, Huff & Northlich, Inc.
Tyrex Inc. 76
Agency: McCann-Erickson, Inc.

U

United Motor Service Div. 46-47
Agency: Campbell-Ewald Co.
United States Steel Corp. 119, 146-147
Agency: Batten, Barton, Durstine & Osborn, Inc.
Utica/Herbrand Tool Div.
Kelsey-Hayes Co. 78
Agency: Zimmer-Keller & Calvert, Inc.

V

Victor Mfg. & Gasket Co. 28
Agency: Buchen Co.

W

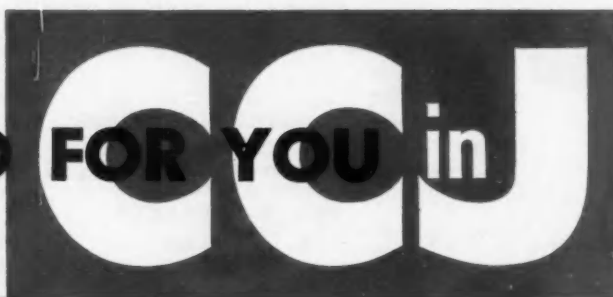
Wagner Electric Corp. 6-7
Agency: Arthur R. Mogge, Inc.
Watson Co., H. S. 152
Agency: Bonfield Associates, Inc.
Willys Motors Inc. 124
Agency: Norman, Craig & Kummel, Inc.
Wood Co., John 148
Agency: Geyer, Morey, Madden, & Ballard, Inc.

CLASSIFIED ADVERTISING

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Chestnut & 56th Sts.
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SHerwood 8-2000

Airlines Transportation Co. 157
Red Top Sedan Service Inc. 157
Ring Bros. Co. 167
Screen Process Printing Co. 157

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E
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T
M
O
N
T
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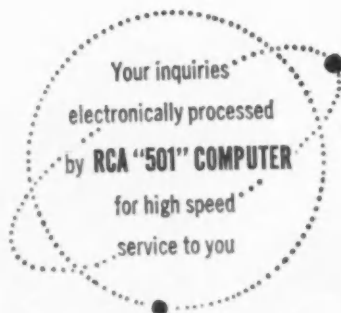
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WITH CARDS folded out as they are now, turn to the first page of the WHAT'S NEW section. You'll find many new products and ideas for truck, bus and passenger car fleets. CCJ will help you get complete details on all the items that interest you. On one of the free reply cards, just circle the numbers corresponding to those with the items. Fill in the lines at the bottom of the card, then drop it in the mail. We'll see that your requests reach the right people . . . at no cost to you.

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Turn this page to see in publications for fleets



REPORTS on the other side could make it easy for you to do a better job. From manufacturers, associations and government agencies, they cover operation, regulation, maintenance and equipment selection. Many are free.

COMMERCIAL CAR JOURNAL
100
101
102
103
104
105
106
107
108
109
110
111
112
113
114
115
116
117
118
119
NAM
NAM
ADD
No. c
WH
De
COMMERCIAL CAR JOURNAL
NA
LIN
NA
AD
No.
COMMERCIAL CAR JOURNAL
100
101
102
103
104
105
106
107
108
109
110
111
112
113
114
115
116
117
118
119
NA
NA
AD
No.



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100	120	140	160	180	200	220	240	260	280	300	320	340	360	380	400	420	440	460	480
101	121	141	161	181	201	221	241	261	281	301	321	341	361	381	401	421	441	461	481
102	122	142	162	182	202	222	242	262	282	302	322	342	362	382	402	422	442	462	482
103	123	143	163	183	203	223	243	263	283	303	323	343	363	383	403	423	443	463	483
104	124	144	164	184	204	224	244	264	284	304	324	344	364	384	404	424	444	464	484
105	125	145	165	185	205	225	245	265	285	305	325	345	365	385	405	425	445	465	485
106	126	146	166	186	206	226	246	266	286	306	326	346	366	386	406	426	446	466	486
107	127	147	167	187	207	227	247	267	287	307	327	347	367	387	407	427	447	467	487
108	128	148	168	188	208	228	248	268	288	308	328	348	368	388	408	428	448	468	488
109	129	149	169	189	209	229	249	269	289	309	329	349	369	389	409	429	449	469	489
110	130	150	170	190	210	230	250	270	290	310	330	350	370	390	410	430	450	470	490
111	131	151	171	191	211	231	251	271	291	311	331	351	371	391	411	431	451	471	491
112	132	152	172	192	212	232	252	272	292	312	332	352	372	392	412	432	452	472	492
113	133	153	173	193	213	233	253	273	293	313	333	353	373	393	413	433	453	473	493
114	134	154	174	194	214	234	254	274	294	314	334	354	374	394	414	434	454	474	494
115	135	155	175	195	215	235	255	275	295	315	335	355	375	395	415	435	455	475	495
116	136	156	176	196	216	236	256	276	296	316	336	356	376	396	416	436	456	476	496
117	137	157	177	197	217	237	257	277	297	317	337	357	377	397	417	437	457	477	497
118	138	158	178	198	218	238	258	278	298	318	338	358	378	398	418	438	458	478	498
119	139	159	179	199	219	239	259	279	299	319	339	359	379	399	419	439	459	479	499

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101	121	141	161	181	201	221	241	261	281	301	321	341	361	381	401	421	441	461	481
102	122	142	162	182	202	222	242	262	282	302	322	342	362	382	402	422	442	462	482
103	123	143	163	183	203	223	243	263	283	303	323	343	363	383	403	423	443	463	483
104	124	144	164	184	204	224	244	264	284	304	324	344	364	384	404	424	444	464	484
105	125	145	165	185	205	225	245	265	285	305	325	345	365	385	405	425	445	465	485
106	126	146	166	186	206	226	246	266	286	306	326	346	366	386	406	426	446	466	486
107	127	147	167	187	207	227	247	267	287	307	327	347	367	387	407	427	447	467	487
108	128	148	168	188	208	228	248	268	288	308	328	348	368	388	408	428	448	468	488
109	129	149	169	189	209	229	249	269	289	309	329	349	369	389	409	429	449	469	489
110	130	150	170	190	210	230	250	270	290	310	330	350	370	390	410	430	450	470	490
111	131	151	171	191	211	231	251	271	291	311	331	351	371	391	411	431	451	471	491
112	132	152	172	192	212	232	252	272	292	312	332	352	372	392	412	432	452	472	492
113	133	153	173	193	213	233	253	273	293	313	333	353	373	393	413	433	453	473	493
114	134	154	174	194	214	234	254	274	294	314	334	354	374	394	414	434	454	474	494
115	135	155	175	195	215	235	255	275	295	315	335	355	375	395	415	435	455	475	495
116	136	156	176	196	216	236	256	276	296	316	336	356	376	396	416	436	456	476	496
117	137	157	177	197	217	237	257	277	297	317	337	357	377	397	417	437	457	477	497
118	138	158	178	198	218	238	258	278	298	318	338	358	378	398	418	438	458	478	498
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in publications

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Use them to get free copies or more details, as indicated

While they last, you can get copies of the following reprints from **COMMERCIAL CAR JOURNAL**. You find the articles timely . . . and useful. For a single copy, circle the number shown on the free **WHAT'S NEW** reply card.

If you'd like more than one, use the **DEAR EDITOR** free reply card and tell us which ones you'd like by title and how many of each. They're on a first come, first served basis.

"Automation speeds bus service"—the service lane at Madison (Wis.) Bus Co.—408.

"Skidmark speed calculator"—How to figure speed from skidmarks in accident investigation—409.

"Engine vibration and balancing"—why's and wherefore's as reported at a recent SAE meeting—410.

"Safety boosts bus business"—How Trailways uses its intercity safety in advertising—411.

"Switch to LP gas saves \$450 a year per truck"—Transit-mix concrete fleet gives costs—412.

"Wheel runout and balance—what can be done"—comment by several wheel and tire makers—413.

"How to get fleet costs quicker"—a summary of the ways fleets can use accounting machines—414.

"Staying alive on the super roads"—the much-in-demand report on limited access highway safety—415.

"Multi-stop vehicle selection"—a 10-step outline by Sealtest's H. G. Steigerwalt—416.

"You can cut repair costs"—The Budd Co.-ATA Foundation study based on intercity fleets—417.

"How to choose reefer equipment for profit"—bodies, refrigeration equipment, ratings—418.

"Engine service data"—maintenance specs for 1961 off-highway automotive equipment—419.

A portfolio of CCJ Bulletin Board reprints aimed at both driver and mechanic safety—420.

Systematic improvement and expansion of any fleet operation requires a thorough working knowledge of current highway transport problems created by the rapid growth of the transportation industry. A new book, *Commercial Motor Transportation*, just published by Richard D. Irwin, Inc., Homewood, Ill., provides a wealth of information on these problems and hints on how to deal with them. It also gives effective methods of locating and getting new business in both transit and trucking fields. It's written by Charles A. Taff, professor of transportation at the University of Maryland, with co-operation and assistance from many fleets and national organizations. Cost is \$10.60 a copy.

For details on how to get your copy, circle 421 on card

Federal automotive excise tax information is provided in a report just issued by the National Highway Users Conference, Washington, D. C. The Federal-Aid Highway Act of 1961 made a number of changes in automotive excise tax rates. This report is intended as a ready reference on the history, rates, revenues and allocations of these special taxes on highway users.

To get your free copy of the report, circle 422

Pros and cons of private vs for-hire carriage are discussed in a new booklet from the Private Carrier Conference, Washington, D. C. It's based on remarks by a panel of speakers at the last annual meeting of the Conference. In the discussions, "Why we tote it ourselves" is explained by private truck operators. "We can do it better" is the reply, with reasons, given by executives of railroads, airlines and common and contract carrier trucklines. Cost of the 71-page booklet is \$1 per copy.

For information on obtaining the booklet, circle 423

Complete reference on construction equipment rental rates is the up-to-date 1961-62 *Green Book* just announced by Associated Equipment Distributors, Chicago. Based on a nationwide survey of construction equipment distributors, average rental rates are provided for nearly 2000 types and sizes of equipment. Items are classified and illustrated for easy reference. Cost is \$6 a copy.

To find out how to get the equipment rental reference, circle 424

New employee communications poster service for tank-truck fleets is available from the National Tank Truck Carriers, Inc., Washington, D. C. Poster messages promote such topics as safety, cost reduction, customer relations, human relations and other good working attitudes. Offered on annual subscription basis, the weekly service includes a durable aluminum poster-display frame.

To learn more about the new poster service, circle 425

Tire maintenance for construction fleet equipment is described by the Rubber Mfrs. Assn., New York City, in a 40-page booklet entitled *Off-the-Highway Tires—Maintenance Manual*. It includes load and inflation tables, instructions for matching the tire to the job, and high cost of bad driving practices, plus procedures for demounting, repairing and mounting these very specialized tires.

To get your free tire maintenance manual, circle 426

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HANDLE EVEN BULKY,
HEAVY LOADS LIKE
THIS. HYDRAULIC
POWER DOES ALL
THE WORK



THE AUSCO TRUCK MOUNTED
CRANE TAKES THE BACKACHES
OUT OF LOADING AND UN-
LOADING. EXTRA MOUNT-
ING WELLS
MULTIPLY
ITS USE.



$\frac{1}{2}$ TON • $\frac{3}{4}$ TON
1 TON • 2 TON
MODELS
AVAILABLE

AUSCO

AUTO SPECIALTIES MANUFACTURING CO.
ST. JOSEPH, MICHIGAN • WINDSOR, ONTARIO, CANADA

One End Lift



Garage
Horses



Saf-Lift
Bumper
Jacks



Transmission
Handlers



Hydraulic
Service
Jacks



More details? Circle 101 on reply card inside back cover

PERFECT CIRCLE PISTON RINGS ARE INSTALLED AS ORIGINAL FACTORY EQUIPMENT IN 94 BRANDS OF VEHICLES AND ENGINES

WHY
THE "PROS"
PREFER
PERFECT CIRCLE
PISTON
RINGS...

RADIAL-ACTIVE DESIGN

ASSURES
BETTER
CONFORMABILITY




The basic metal used in Perfect Circle rings is specially selected for its active, spring-like qualities. And, each ring is carefully engineered to distribute its radial pressure properly for maximum conformability, even in tapered and out-of-round cylinders.

This radial-active design results in sustained compression, less blow-by and positive oil control.

It's one of the many reasons why leading engine and vehicle manufacturers, fleet operators, race drivers and mechanics the world over prefer and specify Perfect Circle piston rings.

For lasting performance, always install genuine Perfect Circles—the rings the "pros" prefer.

PERFECT  CIRCLE

PISTON RINGS • POWER SERVICE PRODUCTS
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NEW PC VALVE SEALS

Stop oil loss past valve guides, eliminate coking problems of valves, ports, and manifolds. For superior performance, install PC Valve Seals with every ring job.

